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Railway Age

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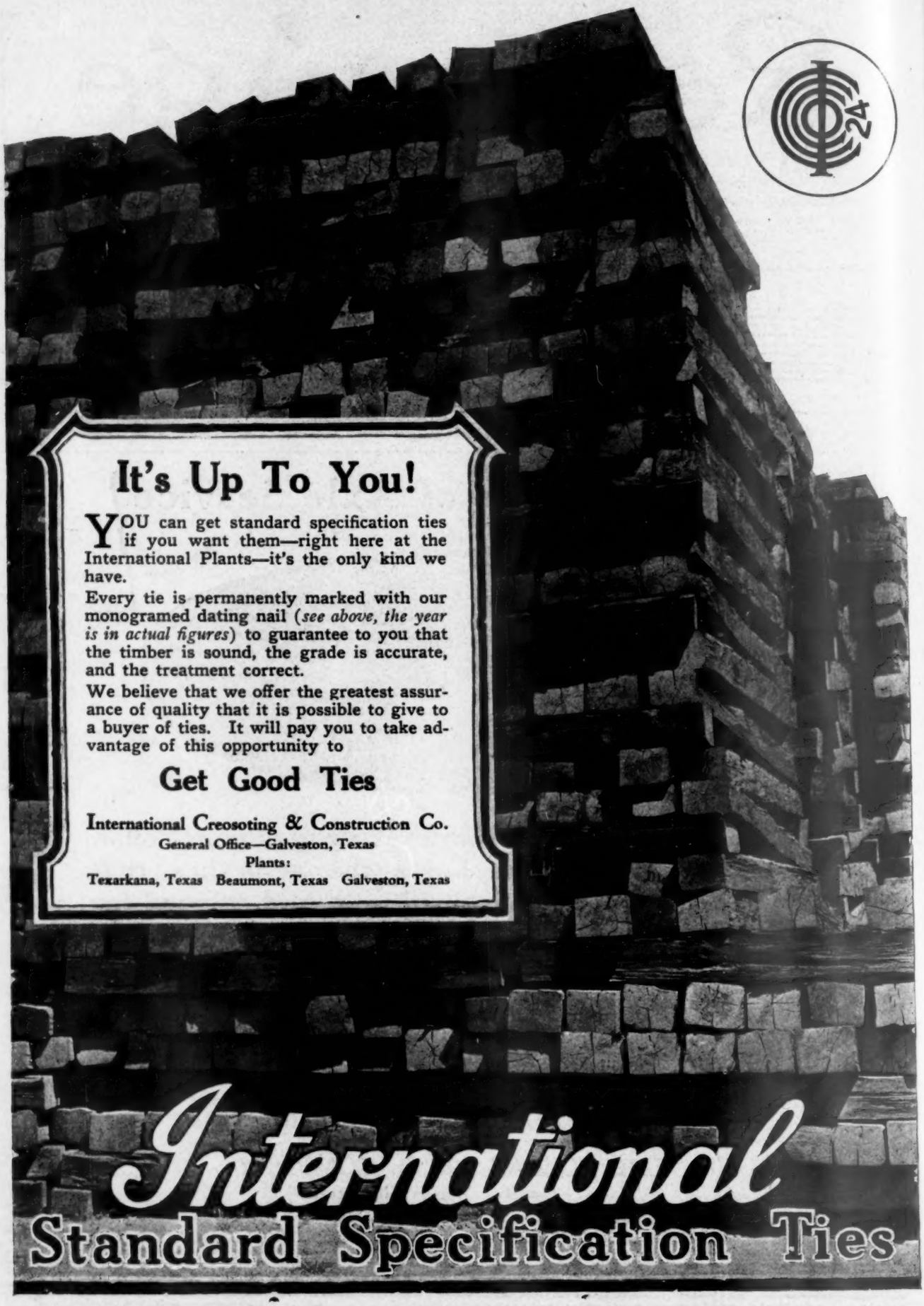
Alphabetical Index to Advertisements, Page 82 Classified Directory of Advertisers, Page 78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EDITORIAL

Railway Age

The Table of Contents Will Be Found on Page 5 of the Advertising Section

Motor Cars Must Be Well Maintained

Time was when the engineer of maintenance could secure approval for his requisition for motor cars only through such drastic measures as an increase in the length of sections with a corresponding decrease in the number of gangs. But that day has passed. The economies of the motor car are now generally appreciated. In many respects, however, their use is still in the formative stage. Some roads, like the Louisville & Nashville, have well developed organizations for supervising the operation and directing the maintenance of these small units of rolling stock. But other roads have confined their provision for these functions to a subdivision of the responsibility for the condition of the cars between the maintenance-of-way organization as representing the "operating" department and the mechanical organization, as representing the repair department. In a measure the latter plan comprises the most logical adaptation of the existing organization to the new development, but the article by J. R. Watt, general roadmaster of the Louisville & Nashville, which appears elsewhere in this issue, presents arguments for a plan of organization under which responsibility for the condition of the motor cars falls entirely on one department. The maintenance-of-way organization is held accountable not only for the proper operation of the cars but also for their repair. This plan possesses considerable merit since it presents a direct parallel with the relation which the mechanical department bears to the locomotives, since it is not only responsible for their care and repair in the shops and roundhouses but also supervises the use of the locomotive on the road through the agency of the road foreman of engines.

An Opportunity to Co-operate in Fuel Conservation

One of the outstanding impressions obtained from reading a large number of the papers submitted in the International Railway Fuel Association prize paper contest is the frequency with which, in some form or other, the plea for closer co-operation between the men and the management is voiced. There is an evident desire on the part of the men for a restoration of closer and more personal relationships. But accompanying this there is also a feeling of resentment at the constant preaching to the men to put forth their best efforts for fuel conservation, which apparently is unsupported by any constructive effort on the part of the management itself. Specifically, this resentment expresses itself in the form of complaints against the lack of a sufficiently general use of fuel-saving equipment on the locomotive and again the furnishing of poor coal to the locomotive. Occasionally a man may be found who more or less clearly appreciates that there may be good reasons, unknown to him, why the best coal is not purchased, or why every locomotive in service is not completely equipped with every known device for efficient use of fuel. These men are the exception, however, and where men feel that the management is not doing its part, there is little hope ever of securing their co-operation. They will do a fairly good job, yes; this they are paid for and few are dishonest enough to take without giving a fair return. Whole-hearted co-operation, however, is more than this. It cannot be bought. It can only be earned. Why not, then, make a slight effort to earn it? If, for instance, there are commercials reasons why it is advisable to purchase an inferior quality of coal for locomotive use, why should not the men be taken into the confidence of the management so that they may understand exactly what the situation is? It will not improve the quality of the coal, but it may go a long ways towards stopping the extensive, sometimes deliberate, wastes of fuel which can be and are made by engine crews when in a resentful mood.

Van Kirk on the Crossing Law

The driver of any vehicle crossing a railroad in New York State where the "R. R." sign gives notice 300 ft. away, is required by the statute to reduce speed to a safe limit and to proceed cautiously and carefully, with the vehicle under complete control. Could the language of the law by any possibility be made plainer than that? (And, it may be added, the same caution is required under the common law, even if there be no approach warning sign, whenever the driver knows, or reasonably could be expected to know, that he is approaching a railroad which is regularly traversed by trains). We have written out this axiomatic truth by way of calling attention to a decision, reported in the court news column of this issue, by Justice Charles C. Van Kirk, of the Supreme Court of New York, in a crossing case, wherein the learned judge takes about 200 words to tell the plaintiff (who ignored the rule and whose suit is rejected) what this simple sentence means. Justice Van Kirk goes even farther, in elaborating the law for the infantile mind, and quotations from his decision have been circulated by the New York Central's law department throughout a dozen states, by means of posters 20 in. in height, setting forth the court's main points in types twice as large as those in which this note is printed. We do not criticize the judge; his words may decide who is or who is not responsible for a fatality, and he must run no risk of an uncertain outcome; but to the man in the street, wearied with floods of words, it is a very practical question, Where are we coming out? Already circulars, leaflets, pictures, pasters, newspaper articles, ponderous reports and all imaginable uses of paper have been employed to impress on the thoughtless or uninformed mind the danger of the grade crossing. By way of suggesting both a curtailment and an amplification, we propose that the posters of the New York Central (and other roads) be abbreviated as to number of words and at the same time magnified as to size of words. Take as a pattern the big advertisements of automobile tires so plentifully sprinkled along the highways—a mammoth billboard that looks like an open book, with letters large enough to be read at a distance of forty rods. Inscribe on a billboard of that size as much of Justice Van Kirk's dicta as an automobilist is likely to be able to assimilate in the few seconds that he occupies in passing the billboard. If the reader will turn to the decision (as we have abstracted it) and look at it through a magnifying glass he will appreciate the value of large type. In all seriousness, such a billboard appeal is the only appeal (except a court sentence) that will reach the brain of the worst offenders.

The Standard Car a Live Issue

In announcing the failure to secure the necessary two-thirds of the votes cast in the letter ballot, required to adopt as recommended practice the box car and truck designs developed by the Car Construction Committee, the General Committee of the Mechanical Division stated that the real objections to the designs had been reduced to a few items and that it had transmitted the propositions voted on to the Committee on Car Construction for review. According to the schedule established by the General Committee, the propositions have now been in the hands of the General Committee for about a week with the recommendations of the Committee on Car Construction as to modifications to be made before resubmission to the members for another letter ballot. Considering the large number of members not voting on the first letter ballot, presumably because of a lack of understanding or of sufficient interest to give the propositions the study which their importance merits, the prompt action of the General Committee following the close of the former letter ballot is highly commendable and further action will, no doubt, soon be forthcoming. The reasons why we have contended that these designs should become the recommended practice of the Mechanical Division, have been set forth in these columns on several occasions during the past few months. Their failure of adoption has not altered that opinion. Attention has previously been called to the fact that these designs received the unanimous support of the membership of the Car Construction Committee, which in itself represented two-thirds of the freight car ownership, the full support of which would be required only in case every member voted. With this support, it is reasonable to conclude that the technical work of the committee is acceptable. If that be true, then the only conclusion must be that, while agreeing that the present designs are good, the roads must be opposed to standardization in principle. On this matter, however, the American Railway Association has been committed for years and since it officially represents the railroads, the railroads themselves have been committed to it for years. In either case, the railroads are placed in the indefensible position that they cannot be depended on to back their organizations in the work which they themselves have authorized, and, furthermore, that they are incapable of sufficient cohesion to act effectively as a unit on anything. The adverse effect on public opinion caused by further grounds for such a belief is likely to be serious.

"Thinking Ahead"

SECRETARY OF THE TREASURY MELLON in his annual report presents a strong argument against making any change in the Transportation Act of 1920 which will affect adversely the credit of the railroads. In spite of the favorable traffic conditions of the present year and the improved financial condition of the roads generally, the capital expenditures during the year have had to be financed almost entirely by borrowing through bond issues. This cannot continue; the credit of the roads must be so fostered that the new capital needed can be provided through some form of proprietary investment. If anything is done to affect adversely the credit of the railroads or if, indeed, some constructive action is not taken to strengthen this credit, business of all kinds throughout the country will suffer—this not alone because the facilities will prove inadequate to handle business offered, but also because when programs of railway upkeep and improvement are checked, those industries which provide the materials and supplies will be forced to operate with a reduced output or possibly shut down entirely. The amount of these supplies is so great that this means that the nation at large must do some very serious "thinking ahead" in order to guard against a period of depression and unemployment.

Dr. Alexander Fleischer, of the Metropolitan Life Insurance Company, in discussing the paper on Personnel and Public Relations at the October meeting of the Western Railway Club, made this statement: "As I listened to Mr. Bruere I thought how it was almost impossible to develop loyalty and faith in a property or in a job, or a sincere interest in what one was doing, if that job might close down tomorrow, or the day after, or a week from now. How could you have that loyalty and faith and interest if you did not know when it was going to close, and if you did not know what your next job was going to be. An answer has been worked out by some railroads, as by some industries—much of the work can be budgeted. Much 'thinking ahead' can be done by managers. Many people who know consider sound budgeting fundamental to business success."

This is another reason why the credit of the railroads must be improved. It is hardly possible to work on a budget basis when a concern is living on a "hand-to-mouth" basis. Building up and tearing down railroad organizations is a pretty expensive proposition and it is vital not only in the interests of the railroads, but to the country as a whole, that employment on the railroads be stabilized to the greatest possible extent, thus building up the morale of the forces, cutting out waste and inefficiency and providing a better and cheaper service to the public; this in the last analysis should do much to help stabilize employment in all industries—a thing very much to be desired.

Transportation Act and Railway Development

THE MOST IMPORTANT provision of the Transportation Act is one which often is ignored in discussions of that law. This is the provision that the Interstate Commerce Commission, in determining what will be a "fair return" for the railways to earn, shall "give due consideration among other things to the transportation needs of the country, and the necessity, under honest, efficient and economical management of the existing transportation facilities, of enlarging such facilities in order to provide the people of the United States with adequate transportation."

This provision is a part of Section 15-A, the repeal of which is being energetically advocated by the radical group in Congress. Experience plainly indicates what may reasonably be expected to be the effect upon the development of railway facilities of the repeal of Section 15-A. This would make the federal law with respect to the regulation of rates substantially what it was before the Transportation Act was passed. The Interstate Commerce Commission and state regulating bodies under the old laws regulated rates to keep them as low as they could without confiscation, apparently assuming that as long as rates could not be shown to be confiscatory the development of the railways would be adequate. The outcome showed that this assumption was entirely erroneous. The full effects of the policy of regulation followed were not felt until after the year 1913. The Interstate Commerce Commission in 1911 denied a general advance in rates which ought to have been granted. Railway business was large until 1913, but even in spite of this the net return of the railways, because of increasing operating expenses, showed a tendency to decline. When traffic fell off in 1914 and 1915 the net return earned very sharply declined. After that the effects of the near confiscation policy of regulating railways became strikingly clear.

Statistics regarding the numbers of locomotives and cars installed in and retired from service tell the story most

plainly. In the eight years June 30, 1907, to 1914, inclusive, the average number of locomotives installed annually was 3,226. The average number retired was 1,436, the average annual increase being 1,790. The number of new freight cars installed during this period averaged 125,494 annually, and the number retired 70,388, the average annual increase being 55,106. During the next two years—those ended June 30, 1915, and 1916—the number of both locomotives and freight cars retired actually exceeded the number installed. As a result of drastic regulation, government operation and business depression the number of locomotives installed in the eight and half years ended on December 31, 1922, averaged only 1,652, and the number retired 1,479, the net increase per year being only 173. The number of freight cars installed in these same years averaged only 81,605 a year and the number retired 79,466, the annual average increase being only 2,139.

The outstanding facts are that the average annual increase in the number of locomotives declined from 1,790 in the eight years ended June 30, 1914, to 173 in the next eight and a half years, and that the average annual increase in the number of freight cars declined from a total of 55,106 to 2,139.

The Transportation Act in the provision above quoted announced, and instructed the Interstate Commerce Commission to adopt, a new policy of regulation—that of not only avoiding confiscation of railways, but of so regulating them as to enable them to provide the people of the United States with adequate transportation. Principally owing to the business depression the rates fixed by the Commission under the Transportation Act yielded wholly inadequate net returns in 1921 and 1922. But business prospects and railway net earnings were improving in 1922, the net return earned has shown a substantial increase in 1923, and the provisions of the Transportation Act have encouraged railway managers and investors to hope for a constructive policy in future. The result has been a striking increase in the expenditures made by the railways for increasing the capacity of their properties.

The effect upon the physical properties can best be illustrated by the facts regarding the amount of new equipment put in service this year. The number of new locomotives installed in the first 10 months of this year was 3,371. This was greater than the number installed in any entire year since 1906, except in 1907 and 1913, and is 960 greater than the average number installed annually in the preceding 16 years. Unfortunately, it did not result in a large increase in the number of locomotives, because 3,074 locomotives had to be retired in the first 10 months of the present year.

The new locomotives are, however, much larger and more powerful machines than those retired, and in consequence there has been a large increase in the available tractive power. The number of freight cars installed in the first 10 months of this year was 155,872. This is more than were installed in any entire year of the 16 preceding years, except 1907, 1908 and 1913, and exceeds the annual average of the preceding 16 years by more than 46,000. The abnormal number of freight cars that have had to be retired because worn out has largely offset the new cars installed, but the new cars are of greater average capacity than those they have succeeded and have largely increased the carrying capacity of the railways.

Many other additions and improvements have been made which have increased the capacity of the roads, and have contributed largely toward enabling them to render satisfactory transportation service in 1923 while handling a record business. These improvements and additions to railway facilities must be continued if they are to continue to be able to handle the growing business of the country satisfactorily. The large expenditures made by them for additions and improvements have helped business in all lines, and the reduction of these expenditures would correspondingly hurt business in all lines.

Do the American people wish Congress to restore the policy of regulation which reduced and almost stopped the development of the railways? If so, they should urge their senators and congressmen to vote for repeal of the rate-making provisions of the Transportation Act. Their repeal would be a mandate by Congress to the Interstate Commerce Commission to do all it could to stop the development and expansion of the railways, and render them unable to handle the country's commerce. Do the American people desire a continuance of the program of improving and enlarging the facilities of the railways "in order to provide the people of the United States with adequate transportation"? If so, they should urge their senators and congressmen to vote against the repeal of the rate-making provisions of the Transportation Act.

The Forsyth Collision

DEATH LOVES A SHINING MARK. The Twentieth Century Limited, with a fine record for fast and safe operation, comes to grief as is likely at any time to be the case with any other train until railways not only have perfect equipment but are manned by employees who never take chances.

No one denies the existence of loop-holes today. At Readville, Mass., lately, an engineman had a defective brain; and the superintendent did not know it. False-clear signals show up occasionally in the records of the past few years, even on the best roads. Every superintendent can testify that now and then a well-known rule of safety—such, for example, as the rule never to put a green fireman, or a dull-minded flagman, on an important express train—has to be violated. Or, at any rate, *is* violated. "The Twentieth Century" now means, not one train but many; not the education of a half dozen enginemen, but of half a hundred. To train a few crack runners is one thing; to be able to run several extra sections over ten divisions on two days' notice is quite another thing. In short, perfect railroading is in this age a tremendously perplexing problem, and all this chance-taking, combined, must bring disaster, sooner or later.

It is no wonder that the automatic train stop (including its own new dangers) is coming to find some favor even with conservative signal engineers. The New York Central, along with other roads, has for months been expending thought, money and varied efforts in the attempt to devise an automatic train-control *system*—not a mere stop—that can be used on its very busy lines and not cause more troubles than it cures. How far we must yet go in this direction before reaching perfection, even in theory, is yet to be seen. The present disaster will most certainly quicken progress all along the line.

The human brain in the locomotive cab is a better machine, year by year, and no one can deny the real improvement that has been accomplished in the last dozen years; the best enginemen make fewer mistakes. But the operation of scores or hundreds of fast and heavy trains, which is the problem of the superintendent of every big division, does not depend simply on finding a lot of runners with good brains—though that in itself is difficult enough—but on the smooth working, day in and day out, of a vastly complicated administrative machine; and the demand for additional mechanical and electrical devices, to check the human element, is entirely natural.

The fact, however, remains, that each new report on a

serious collision shows where we have failed to make use of the safeguards which are already available. The records of the Bureau of Safety of the Interstate Commerce Commission are full of well-known lessons which have been public property for years. The particular lessons of the Forsyth collision cannot be formulated until the results of the detailed investigation are available; but it will be an unheard of thing if the report does not disclose more than one contributing cause (not to mention the automobile). If first reports are true, the engineman had passed two or more caution signals at high speed and had not slackened materially until he passed a good distance beyond the second one; whereas everybody agrees that the only entirely satisfactory way to run such a train as that at full speed, especially in a foggy atmosphere, is to drop back far enough to get all distant indications clear. The New York, New Haven & Hartford finds decided satisfaction in its rule that at every cautionary signal the engineman must not only reduce speed (which may mean much or little) but must at once bring his train under control. This rule deserves more consideration than it has received. The informed reader will recall other rules, essential to the highest safety, which every now and then are found to have been relaxed or ignored, even on our best railroads.

Discussion of this disaster will include much talk about automatic train stops, automobilists' carelessness and the duty of doing away with grade crossings, in all of which topics there are lessons a-plenty; but the immediate lesson, as regards the lives of passengers in sleeping cars on foggy nights, is to do everything humanly possible to have a perfect engineman, with an experienced and conscientious fireman, on every fast train. The Bureau of Safety has set forth this lesson many times, and probably will now have to do so again.

President Coolidge on Railroads

THE VIEWS EXPRESSED by President Coolidge regarding railway matters in his first message were read by railway officers with much interest. The President has a rare gift of keeping to himself what he thinks about anything until he is ready to say it in his own way. His remarks in his message were as concise as they were frank and courageous. In a few paragraphs he touched upon all the current questions affecting railway regulation in such a way as to leave no doubt of his attitude about any of them.

The rate-making provisions—Section 15-A of the Transportation Act—have been the subject of much criticism and misrepresentation. While showing that they do not "guarantee" railways any fixed return, the President outspokenly defended their purpose of assuring to the railways the "fair return" to which they are constitutionally entitled. "Unless the government adheres to the rule of making a rate that will yield a fair return," he said, "it must abandon rate-making altogether." The rate-making provisions do not, however, merely direct the Interstate Commerce Commission to let the railways earn the constitutional "fair return"—that is, a return that will barely avoid confiscation. They direct it, in determining what will be a fair return, to consider the need for an increase in railway facilities "in order to provide the people of the United States with adequate transportation." We believe this is the most important provision which differentiates the Transportation Act from previous railroad legislation, and we regret the President did not emphasize its importance. What the country needs is a policy of regulation which will not only avoid confiscation but will help to provide enough transportation.

Another important part of the Act which differentiates it from previous railroad legislation is the "recapture" provision. The President stressed the importance of this. Referring to the fact that its constitutionality is before the Supreme Court for adjudication, he said: "The decision should be awaited before attempting further legislation on this subject. Furthermore, the importance of this feature will not be great if consolidation goes into effect." The intimation that a decision in the "recapture" case might make desirable further legislation emphasizes the unwisdom of the litigation to overthrow this provision. Meantime, it is gratifying to find the President taking a stand against the repeal of Section 15-A.

The President opposes abolition of the Railroad Labor Board unless a substantial agreement can be reached by representatives of the railways, the employees and the public upon some better method to settle railroad labor controversies. The two great purposes of the creation of the Labor Board were, first, to establish reasonable and equitable wages and working conditions for employees, and, secondly, to promote peace and prevent strikes on the railroads. No man can say whether wages would have been higher or lower, or working conditions more or less fair and satisfactory, since the railways were returned to private operation if there had been no Labor Board. Each is entitled to his own opinion, and the opinion of this paper is that on the whole the board has promoted justice between the railways and the employees, and it is emphatically our opinion that there have been less serious labor disturbances and strikes than there would have been if it had not been in existence and functioning.

To the President "consolidation appears to be the only feasible method for the maintenance of an adequate system of transportation with an opportunity to so adjust freight rates as to meet such temporary conditions as now prevail in some agricultural sections." He believes the present consolidation provisions of the Transportation Act are not satisfactory. He favors additional legislation giving authority for voluntary consolidations subject to the approval of the Interstate Commerce Commission. He would have the commission appoint committees representing the public and the roads, with power to negotiate with the security owners of each group of railroads it is proposed to consolidate for an exchange of securities on such terms and conditions as the commission may prescribe for avoiding any confiscation and preserving fair values. Should this permissive scheme of consolidation prove ineffective after a limited period, "the authority of the government," he believes, "will have to be directly invoked."

There will, we think, be general agreement among those in favor of consolidations that this program would be more feasible than that prescribed in the existing consolidation provisions of the Transportation Act. The making of many consolidations is desirable. There are many small roads which should be merged into large systems. There are many weak roads which should be merged with strong roads. There always has been a natural economic tendency toward consolidation of railways, but this tendency long was largely defeated by government regulation, especially by the Sherman anti-trust law. The existing consolidation provisions of the Transportation Act cannot be helpful because they attempt to deal as arbitrarily with railways as did the Sherman anti-trust law. They contemplate the adoption of a nation-wide scheme of consolidation by the Interstate Commerce Commission from which, after its adoption, there can be no departure and under which the amount of securities that may be issued by a consolidated system must be made to conform to the valuations of the component properties—valuations which have not been finished and may not be for years. There can be no reasonable objection to the commission going ahead and formulating a general scheme of consolidation. After that,

however, the railways ought to be allowed to effect consolidations in any reasonable and feasible way the commission may approve. They could not, as has sometimes been intimated, issue excessive securities because, regardless of the consolidation provisions, the commission has authority to regulate the issuance of all securities. The railroads and the commission ought not to be bound absolutely by a tentative plan of consolidation adopted by the commission, because it is easily conceivable that negotiation and investigation would develop the fact that consolidations might be made which would be as desirable, or even more desirable, as those first proposed by the commission.

The President says, in effect, that if after a time satisfactory voluntary consolidations are not effected the compulsion of the government should be used. It is doubtful if public sentiment will ever favor compulsory consolidations, and still more doubtful if compulsion would be constitutional.

In different places in his message the President suggests the desirability of an extensive reorganization of the freight-rate structure, especially to reduce rates on some agricultural products and advance them on other commodities. Schedules of freight rates were built up principally by the competition of railways and markets until about 17 years ago. Since then they have been subject to effective regulation by state and federal commissions, and innumerable readjustments have been made in obedience to orders of these bodies. Nobody will contend that the existing relationships between rates are perfect, but as a whole they have been held reasonable and just by regulating authorities, and especially by the Interstate Commission. Those who claim that a general reorganization of them is desirable and necessary really criticize the policy of the railroads no more than the policy and work of the regulating authorities.

Assuming that the need of the railroads to charge rates which will enable them to pay reasonable wages, to meet other reasonable operating expenses and taxes and to earn a net return sufficient to provide adequate transportation is always recognized, there can be no valid objection to a thorough investigation being made of all existing schedules of rates to determine whether extensive readjustments will make them more fair and will benefit the industry and commerce of the country. It should be recognized, however, that such an investigation would be a prolonged and herculean task and that no great readjustment of existing rates could be made without producing corresponding effects upon the different classes of producers and shippers and upon the innumerable markets of the country.

Co-operation Between Labor Unions and Railways

An editorial entitled "The Need for Better Section Foremen" was published in the *Railway Age* for December 1. It has called forth from L. E. Keller, statistician of the United Brotherhood of Maintenance-of-Way Employees and Railway Shop Laborers, an interesting letter on co-operation between railways and labor unions which is published elsewhere in this issue.

Mr. Keller believes that co-operation could be brought about between the railways and their employees which would enable the roads to pay higher wages and at the same time operate more economically. He believes that such co-operation with the employees should be brought about through the national labor organizations. He indicates that the Maintenance-of-Way Employees' Union would be willing to use its own funds to educate its membership for more efficient and economical performance of their work "if the railroads (would) cease their interference with the normal and legitimate activities of the Maintenance-of-Way Employees' Union." He refers in commendatory terms to certain forms of co-operation between the railway and the labor unions which have been adopted on the Baltimore & Ohio.

The *Railway Age* many times has emphasized in editorials the fact that the railways and their employees have a common interest in promoting efficiency and economy in operation. We have expressed the view that the labor unions could not in the long run in any way better promote the true interests of their members than by co-operating with the managements in trying to increase efficiency. Furthermore, we have repeatedly said that this paper has no sympathy with efforts made by any class of employers to break up labor unions merely because they do not want to deal with unions. The right of employees to organize in labor unions is just as clear as the right of owners of a property to organize a corporation or of a group of employers to organize an employers' association. Furthermore, we believe that most railway officers concur in this view.

Why, then, is there a want of satisfactory co-operation between the railways and their employees, and especially between the railways and certain labor unions?

Mr. Keller's letter implies that the union with which he is connected does not actively co-operate in trying to promote efficiency because the railways are constantly trying to break it up. There have been railways which have tried to break up this and other unions. Sometimes they have done this solely because they did not want to deal with unions. They have preferred to deal with their employees without the interference with the exercise of authority and discipline which unions might cause.

But no real and hearty co-operation can ever be brought about between employers and labor unions if the things the employers have done to the unions are considered to the exclusion of the things the unions have done to the employers. Among the principal reasons for the antagonism many employers have shown toward labor unions on railways and in other industries has been that most unions have tried to limit employment to the members of the unions and to restrict the membership of the unions in order to secure for them a narrow monopoly of the work to be done, and have also tried to impose working conditions which would restrict efficiency and output. When a union tries to do these things it makes it necessary for the employer to resist. If he cannot resist successfully in any other way he is forced in self-defense to try to break up the union itself. The labor union which should come to the average employer with a bona fide plan for co-operating with the employer to increase efficiency in order that both the employer and the men might earn more money would usually receive a hearty welcome. It would be difficult, however, for most labor unions to cite many cases where they have done this.

There is another aspect of the present relations between the railways and most of the labor unions which is very important. The spokesmen of some of the unions complain that the railways are trying to destroy them. The railways may with even more force reply that the railway labor unions are engaged in an organized effort to destroy their employers. The heads of most of the railway labor unions are constantly engaged in carrying on propaganda to discredit the present management of the railroads. It is almost impossible to pick up a weekly or monthly paper published by these unions that does not teem with vicious, misleading and even scurrilous attacks upon the present managements. They are seeking at one and the same time to get higher wages for the employees and to cause reductions of the freight and passenger rates from which the wages must be paid. The purpose is obvious and notorious. They are trying to destroy private ownership and management of railroads. With what justice can any spokesman for a labor union complain because any railway tries to weaken or break down a union when most of

the unions are openly and constantly engaged in trying to weaken and break down the entire system of private ownership and management?

There ought to be a better understanding and closer co-operation between the railways and the labor unions. Its purpose should be to cause the railways to be more efficiently and economically operated in order that the employees may have reasonable wages, railway owners reasonable dividends and the public good and cheap transportation. The leaders and members of the labor unions ought to recognize the fact, however, that it is as much a part of their duty as of the railway managers to help bring about such co-operation; that there never can be satisfactory co-operation until there is peace between the labor unions and the railway managers; and that there never can be real lasting peace either while any managers are trying to break up the unions or while the unions are trying to break down and destroy private management.

New Books

Proceedings of the American Wood Preservers' Association for 1923. 583 pages, 6 in. by 9 in., illustrated. Published by the American Wood Preservers' Association, 1146 Otis Bldg., Chicago.

This book contains a complete account of the nineteenth annual convention of the American Wood Preservers' Association which was held in New Orleans on January 23, 24 and 25. As in previous editions, it also contains the latest statistics regarding the timber treating industry, including the amounts of preservatives of different kinds used, the quantity of timber subjected to preservative treatment, subdivided as to uses, with particular attention to railroad cross ties which comprise by far the largest single item in the application of preservative treatment to wood.

The papers and committee reports presented and discussed at the convention may be divided under three heads: Those relating to the business of the industry as affected by market conditions with particular attention to measures for the promotion of timber treatment, those concerning the intricate and more technical problems of plant operation and the success being obtained in the more recent development of preservative processes, and those relating to the records of service secured through the use of timbers subjected to treatment with particular reference to railway cross ties, piles subjected to attacks of marine borers, etc. Since the American Wood Preservers' Association comprises one of the most thoroughly and completely organized industrial groups, its proceedings provide information concerning the latest developments in the art which is unobtainable from any other source or in any other form.

IF THE COUNTRY is to have cheaper rail transportation, it must first have prosperous railroads. The railroads must spend money in order to save money. This is the text of the latest advertisements of the Illinois Central. Continuing, President Markham says: "The freight business of the Illinois Central, measured by the number of tons carried one mile, was 97 per cent greater in 1922 than in 1910. This 97 per cent increase in ton miles was performed with an increase of only 5 per cent in the number of freight train miles. If the average freight train load had been in 1922 what it was in 1910, the direct costs of freight train operation (wages, fuel, lubricants and other supplies) would have been $21,341,652 greater in 1922 than they actually were. This substantial saving in cost was effected by well-planned expenditures for improvements and extensions to our facilities. Since 1910 the Illinois Central System has expended $225,000,000 in this work."

Books and Special Articles of Interest to Railroaders

(Compiled by Elizabeth Cullen, Reference Librarian, Bureau of Railway Economics, Washington, D. C.)

Books and Pamphlets

Abstract of the Fourteenth Census of the United States, 1920, compiled by the Bureau of Census. Statistics of population, occupation, agriculture, manufacturing, etc. 1303 p. Published by the Government Printing Office, Washington, D. C.

Eleventh Annual Report of the Secretary of Commerce 1923. Railroad consolidation, Unemployment, p. 27-34, 235 p. Published by the Government Printing Office, Washington, D. C.

Frederick W. Taylor, Father of Scientific Management, by Frank Barkley Copley. The railroads and scientific management, vol. 2, p. 369-377. 2 vols. Published by Harper, New York.

From Pinafores to Politics, by Mrs. J. Borden Harriman. Chapter 8 discusses events leading up to the passage of the Newlands Act, and this section is published in the Century for December, p. 296-307 under title "Hither and Yon." Mrs. Harriman was a member of the Industrial Relations Commission. 359 p. Published by Henry Holt, New York.

Land and Sea Tales for Boys and Girls, by Rudyard Kipling. "The Bold 'Prentice," p. 227-245, is a story of Indian railways, and "The Nurses," p. 246-248, a poem about locomotive engineers and sea-captains. 322 p. Published by Doubleday, Page & Co., Garden City, New York.

Strenuous Americans, by R. F. Dibble. "James J. Hill," p. 257-286. 370 p. Published by Boni & Liveright, New York.

Thirty-seventh Annual Report of the Interstate Commerce Commission, December 1, 1923. 72 p. Published by Government Printing Office, Washington.

Periodical Articles

Are Business Men Responsible for Radicalism? by Edward G. Riggs. The first of two articles urging business men to assume political responsibilities. On p. 276 is a compilation showing make-up of Congress and several state legislatures by the professions of their members. Forbes, December 8, 1923, p. 255-256, 276.

Easing the Freight Burden. It Falls Harder on Farm Products Than on Luxuries, by E. V. Wilcox. "The Transportation Institute promises to take the freight rate problem out of the realm of mere statistics, ex parte arguments and political propaganda, to drag it quite unceremoniously forth from the star chamber of railroad mysteries and to make it literally everybody's problem." p. 26. Country Gentleman, December 8, 1923, p. 7, 26-27.

Freight Rates on Wheat to Liverpool From Argentina Less Than From the United States. Compiled by Bureau of Agricultural Economics. Issued, without table, as press release, U. S. Dept. of Agriculture, November 26, 1923. Weather, Crops and Markets, December 1, 1923, p. 588-589.

Labor Unions at the Danger Line, by F. Lauriston Bullard. Railway labor policies, p. 728-729. Atlantic Monthly, December, 1923, p. 721-731.

The Railways Valuation Muddle. Politics and the Courts, by Aaron Hardy Ulm. Concluding article. Barron's, December 10, 1923, p. 5.

Saving Millions by Better Loading, by Edward S. Evans. Loading of automobiles for safe shipment. Management and Administration, December, 1923, p. 715-718.

Traffic League Adopts Constructive Program. [Of railroad policy.] Trade and Transportation Bulletin, December, 1923, p. 1-2, 8.

Letters to the Editor

[*The* RAILWAY AGE *welcomes letters from its readers and especially those containing constructive suggestions for improvements in the railway field. Short letters—about* 250 *words—are particularly appreciated. The editors do not hold themselves responsible for facts or opinions expressed.*]

The Train Dispatcher Stands Corrected

CHICAGO.

TO THE EDITOR:

We have noted the editorial in your issue of November 10, "How One Union Paper Misinforms Its Readers," and which refers to our comment regarding the Canadian National Railways in the October Train Dispatcher.

While we willingly stand corrected in the inadvertent use of the words "profit" and "net profit," when we should have used the words "gain" or "improvement," we deny your charge of "misrepresentation," "deliberate" or otherwise. We quoted your figures as to net operating revenues and deficit and stated clearly what they represented which we certainly would not have done had we been inclined to make any "deliberate misrepresentation."

We are well aware of the fact that the Canadian National Railways were owned by the government in 1922, but it was government ownership with more or less private operation while in 1923 it has been government operation.

Your second criticism is of an article, "Concealing Excess Rail Profits," by Leland Olds, an economist and industrial writer of repute, and the article is very clearly indicated as such. We can easily understand that the editors of the *Railway Age* do not like the work of Mr. Olds. However, the correctness of the figures are not challenged in your criticism. "Cost plus" contracts for equipment and maintenance are a matter of record with the Interstate Commerce Commission and the Labor Board.

While we do not challenge the correctness of your figures, we have every reason to believe that they do not fairly represent the actual "bad order equipment" conditions, nor the actual improvement. N. D. Ballantine, vice-president of the National Railway Service Corporation, in a recent address before the Traffic Club of New York, the greater part of which is published in the November Train Dispatcher, analyzed some of the reports and records of the railroads for 1923 and previous years and made the following statement, "With over 22 per cent increase in investment in road and equipment during the past seven years aggregating over four billion dollars, spent on the basis of individual and not collective requirements and the peak demand for transportation in terms of loaded car miles still below the peak demand of 1916, who, then, can say that the railroads should or should not have purchased more refrigerator, box, stock or flat cars, or in fact whether any new equipment was needed, if the latent possibilities of correlated action in the distribution and repair of equipment proposed by the National Association of Owners of Railroad Securities in 1919, and still being urged by it, were put into practice?"

In this same address, Mr. Ballantine showed that records could be made by *merely the distribution of cars.* He said, "the goal of the American Railway Association in its so-called 'Constructive Transportation Program of 1923' of only 5 per cent bad order cars by October 1, 1923, would have been reached on June 1 if only 21 per cent, or the low ebb of 1920, of owners' cars on owners' rails had prevailed, and this *without change in the actual physical condition of the equipment.*"

It occurs to us that you have unfairly jumped at a good many conclusions in your very general attack. This association has never supported any movement for government ownership of the railroads, nor have we advocated it, although you "deliberately" set forth that we *demand* it. You charge us with conducting an anti-railroad campaign which is not a fact unless criticism of railroad methods and practices which are favorable to a few people of the country and against the general welfare places us in the "anti" class.

We are glad that you recognize the fact that train dispatchers are men of intelligence and we are confident that they are sufficiently endowed in that respect to get the meanings intended from the articles they read.

We hope that you will be kind enough to publish this reply to your criticisms in the next issue of your publication.

C. L. DARLING,
Editor, The Train Dispatcher.

(Mr. Darling, in the Train Dispatcher for December, published in full the editorial in the *Railway Age* of November 10, entitled, "How One Union Paper Misinforms Its Readers." We are therefore glad to publish his letter to us, replying to this editorial. Mr. Darling admits that his comments upon the results of operation of the Canadian National were a "misstatement," but says the misstatement was not made intentionally. We therefore withdraw any intimation made by us affecting his integrity of purpose; but at the same time suggest to him that an editor who in discussing a subject makes misstatements because of ignorance of facts he ought to know before attempting to discuss the subject, may do as much harm as one who makes misstatements intentionally.—Editor.)

Unfair Motor Truck Competition

HOLDREGE, Neb.

TO THE EDITOR:

The report of the U. S. Chamber of Commerce committee on motor transportation in your November 24 number is quite interesting, especially the part referring to the cost of maintaining the highways. Anyone who has given the competition by trucks any thought at all knows that it would be impossible for trucks to maintain their present rates if they were to be put on the same basis as other common carriers. While this is common knowledge to those who have made a study of it, it is not known to the general public.

One naturally would not expect the shippers, who avail themselves of the cheap rates, to take the public into their confidence and tell them the trucks were not paying their just share of the road maintenance, so it is up to the railroads who suffer from unfair competition to present the facts.

The cost of keeping up the good road program is mounting by leaps and bounds. The public is in favor of having good roads, yet the cost of maintaining them is excessive, and there is a growing complaint from taxpayers because of this never-ending expense. In communities where there is a great deal of trucking the road expense is way out of proportion to places where the roads are used principally for passenger cars. A good statistician should be able to dig out this extra expense and present it to the public so it can see where the money is going, and why. These figures put out at a time when the road fund has been hard hit would be sure forcibly to impress the public. An enlightened public will never stand for the road fund to be drained for the gain of a corporation, but will soon demand the necessary legislation that will put it on the same basis as any other

common carrier—also see that the extra expense is paid by the trucking companies.

In most cases the shipper by truck runs his own risk of damages, but most people do not think of such a thing. It doesn't take much of a truck to haul a thousand dollars' worth of good furniture, and if it should catch fire and burn the shipper would be out just that much because he didn't know. A few cases of total loss suffered by truck shippers brought to light would in most cases be the deciding factor to ship by rail.

Ship by rail and save the highways is a mighty good slogan to put out among the taxpayers, but it should be accompanied by a statement of facts to show why the trucks are ruining the highways and saddling the upkeep upon the taxpayers, which, of course, includes their competitor—the railroads.

L. F. JAGGER.

Co-operation Between Roads and Labor Unions

DETROIT, Mich.

TO THE EDITOR:

The fundamental reason for the transportation industry's inability to provide itself with more and better section foremen is the fact that such positions are less attractive than other lines of work in other industries. The worker, naturally enough, desires to sell his labor in the best market. His wages are a vital question to him and his family. But wages are not the only consideration. If he is ambitious and possesses the qualifications necessary to make a good foreman, he will also be interested in the future possibilities for promotion to a higher position and the conditions under which he must work and live will be carefully considered by him.

The reason for the acknowledged lack of good material in the gangs with which future foremen are to be made is plain enough; at any rate the shortage is apparent to all close observers. The solution of the problem is the question. The worker advances the claim that wages are insufficient and the positions are otherwise unattractive. The wage question, however, is his chief objection. The management, on the other hand, claims its inability to further increase the maintenance costs and feels that with expenses for track maintenance exceeding a half billion dollars annually, the necessity for strict economies is too great to permit wage increases.

But is it not possible to improve conditions for both the industry and its employees? The writer thinks it can be done. If so, its accomplishment will not only be a big step in the direction of solving the question of future foremen, but will also be a very desirable and economical settlement of many present difficulties.

Remove the spirit of antagonism that unquestionably exists between some railroad officials and some employees. Establish a feeling of confidence and trust between the two groups and then we have a foundation to begin our program of mutual benefit upon. Co-operation can produce increased efficiency on the part of both parties. This in turn can be made financially beneficial to both.

It is well worth trying and should be encouraged. I am confident the maintenance-of-way employees would support the plan if properly met by the management.

As previously stated, the program would have to be entered into with a feeling of confidence and co-operation. Organized railroads should discontinue looking upon organized employees with antagonism, or with that existing feeling that unions are to be tolerated as a necessary evil. Organized employees should adopt constructive policies and should realize that more efficient service on their part would mean increased earnings. A clean-cut, wholesome relationship with the two organizations would be necessary. The longer the employees are forced to struggle in their attempt to build up and retain their national labor organizations, the more bitter the struggle will become, and hence the more serious will be the misunderstandings and the graver the differences which must eventually be healed. On the other hand, the union must be the foundation of a better feeling toward the management on the part of the employees. The union must lead the employees not only in the direction of collective bargaining, but likewise toward collective service and greater efficiency, better workmanship, elimination of waste and to the assumption of greater responsibility for the welfare of the industry.

Both the management and employees can well afford to consider a proposal of this kind. Both can do so from a selfish viewpoint if from no other, but the financial benefits are not all the benefits to be enjoyed. A better industry to work in, a greater and more economical service rendered, a more contented and stabilized condition of employment, a probable reduction of unemployment and much of a desirable and beneficial character will result from a relationship and co-operation of this kind if properly entered into and carried out.

If the railroads cease their interference with the normal and legitimate activities of the maintenance-of-way employees' union, then that organization can, and I think will agree to, spend the time and money now used to defend itself against such interference, toward educating its membership in more efficient and economical performance of its work. Instead of employing organizers to rebuild the membership destroyed by interference from the management, it could employ experts to build up a greater degree of skill in maintenance-of-way work. Instead of maintaining a department for securing and reinstating members, it could maintain a Service Department beneficial both to management and employees.

A fair division of the proceeds resulting from the joint efforts of labor and management should, of course, be recognized in principle and would reduce the difficulties of wage negotiations.

The Baltimore & Ohio has recognized the benefits of a program of this kind and its recent performance bears evidence of the soundness of such a policy. I am indebted to the experience of that road, and to O. S. Beyer, Jr., consulting engineer of the Labor Bureau, for much of the thought contained in this article. It would be interesting to know if a few prominent roads would care to enter a discussion of the merits and details of such a program. Can they fail to see that labor and management would thereby be an asset to each other? Would it not be worth while to have a few hundred thousand maintenance-of-way workers scattered all over America, in every quarter served by a railroad car, all of whom would be agents of good will, helping improve the industry, finding new business, assisting in the growth and prosperity of the industry, and who were materially interested in the productive features of the roads? I would be glad to hear more of this discussion.

L. E. KELLER,
Grand Statistician, United Brotherhood of Maintenance-of-Way Employees and Shop Laborers.

J. A. EDSON, president of the Kansas City Southern, has issued a statement to the public, showing the success of his road in expediting the transportation business of the country in accordance with the plans of the American Railway Association. By October 1, the K. C. S. had reduced the number of cars awaiting and undergoing repairs to 4.8 per cent and the number of locomotives to 9.2 per cent. The average miles per car per day during the period ending October 1, was 40.1 and the average tons per loaded car was 26.5. Creditable records were also shown in purchases of locomotives, of freight cars, track material and other items.

Wreck of the Twentieth Century Limited

Second Section, Stopped, in Dense Fog, Run into at Forsyth, N. Y., by Third Section—Nine Persons Killed

IN A SERIOUS rear collision between two sections of New York Central westbound train No. 25, the Twentieth Century Limited, at 1:25 a. m., on Sunday, December 9, at Forsyth, N. Y., 62 miles west of Buffalo and 26 miles east of Erie, eight passengers and a porter were killed and five passengers were injured. The third section ran into the second, which was at a standstill, at about 35 miles an hour, crushing one car.

Equipment of Trains Involved

This train leaves New York at 2:45 p. m. and on this run was being operated in three sections. There had been some engine trouble on the leading section east of Rochester and the second section left that city ahead of the first; but in this account the trains are known as Sections No. 1, No. 2 and No. 3, as operated, the original No. 1 being entered as No. 2.

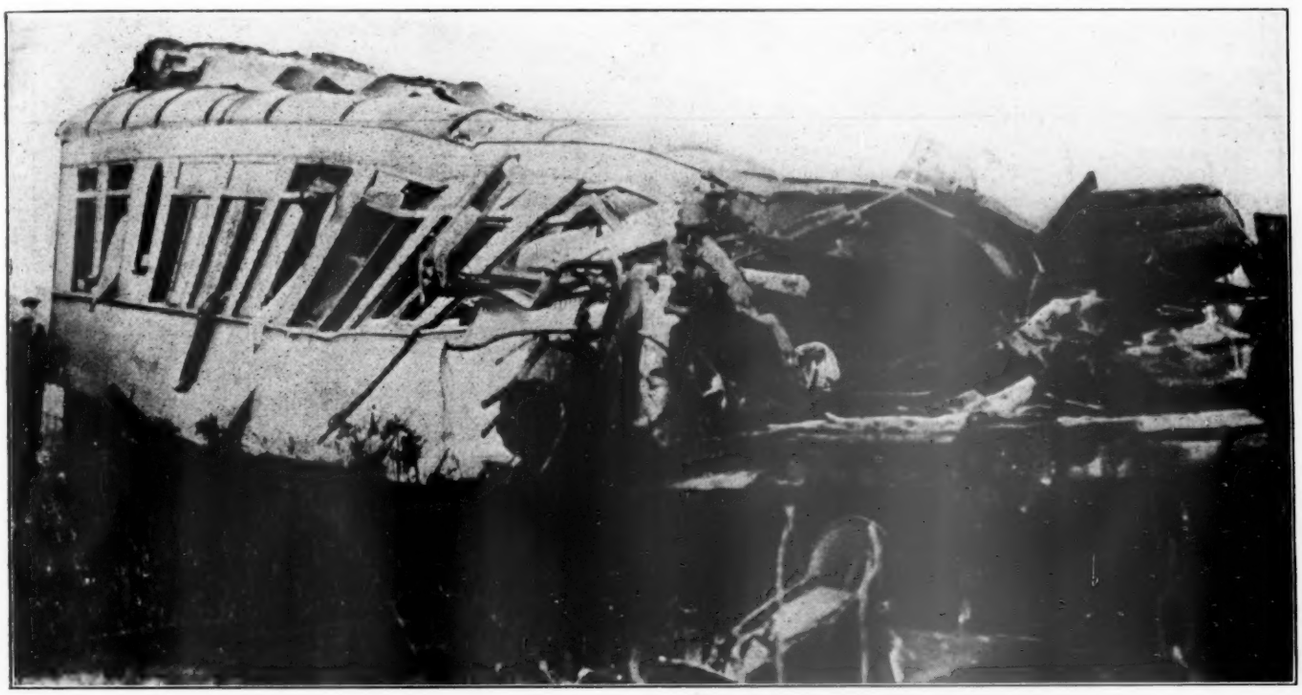
The first section was made up of engine 3285, a club car, seven sleepers and an observation car. The second section, the one that was wrecked, consisted of engine 3287, a club car, seven sleepers, and one observation car; and the third section consisted of engine 3316, one mail car, one club car, seven sleepers and one observation car. These cars in all the trains were all-steel and of the latest type of construction.

Track and Signal Layout

The Erie division between Buffalo and Cleveland has four tracks, two high-speed and two low-speed. The trains were following each other on the westbound high-speed track, which is the second track from the north. This track, as well as the eastbound high-speed track is of 105-lb. rail with six-bolt splice bars.

Approaching the point of collision from the east, the track is tangent for about four miles, all of which is on an ascending grade of 0.30 per cent, which condition continues west of the point of collision for a mile or more. The roadway is at ground level, except for a heavy ballast fill of four or five feet. About 1,500 ft. east of the station at Forsyth, the Buffalo road, a paved highway, crosses the tracks at grade. Although the highway crosses nearly at right angles, the highway approaching from the west parallels the tracks.

All tracks are signaled with two-arm, lower quadrant automatic semaphores, the block sections being approximately one mile long. The track on the north is the westbound low-speed, designated as track 3; the second track is the westbound high-speed, known as track 1; next is track 2, eastbound high-speed, and on the south is track 4, eastbound low-speed. The signals for each direction are located on a single bracket post to the right of the tracks in the direction of operation. The signal takes the mile-post number with suffix of track number, as, for example, 62-1 is located at mile post 62 and governs trains on the westbound high-speed track. This particular signal, 62-1, is located approximately 1,000 ft. east of the point of collision, and signal 61-1 is a mile further east. There is an automatic three-position wigwag highway crossing signal, with a bell, at each approach of the highway to the New York Central tracks. These signals are controlled by track circuit, westbound trains starting the signal when 4,000 ft. from the crossing.



P. & A.

All That Was Left of a Steel Pullman

The Part the Automobile Played

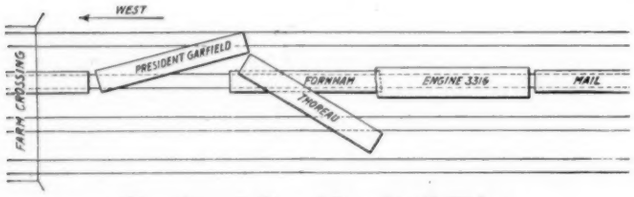
A short time previous to the collision an automobile approached the crossing on the highway from the west. There was a dense fog and a drizzling rain, which appears to have

confused the driver; and in order to be sure that his engine should not stall on the crossing, he shifted from high to second while he was yet going at a considerable speed. This change caused the car to skid on the crossing and it ran about 100 ft. east on the westbound passenger track. The three men in the car stated that after the car headed down the track they saw the headlight of the train (the first section) approaching. They did not have time to make any attempt to get the car off the track, but abandoned it at once for personal safety.

Train Operation

The first section passed Westfield, five miles east of Forsyth, on time at 1:05 a. m., the second section followed at 1:11, six minutes later, and the third at 1:19.

The first section struck the automobile, smashing it and



Situation of Cars After the Collision

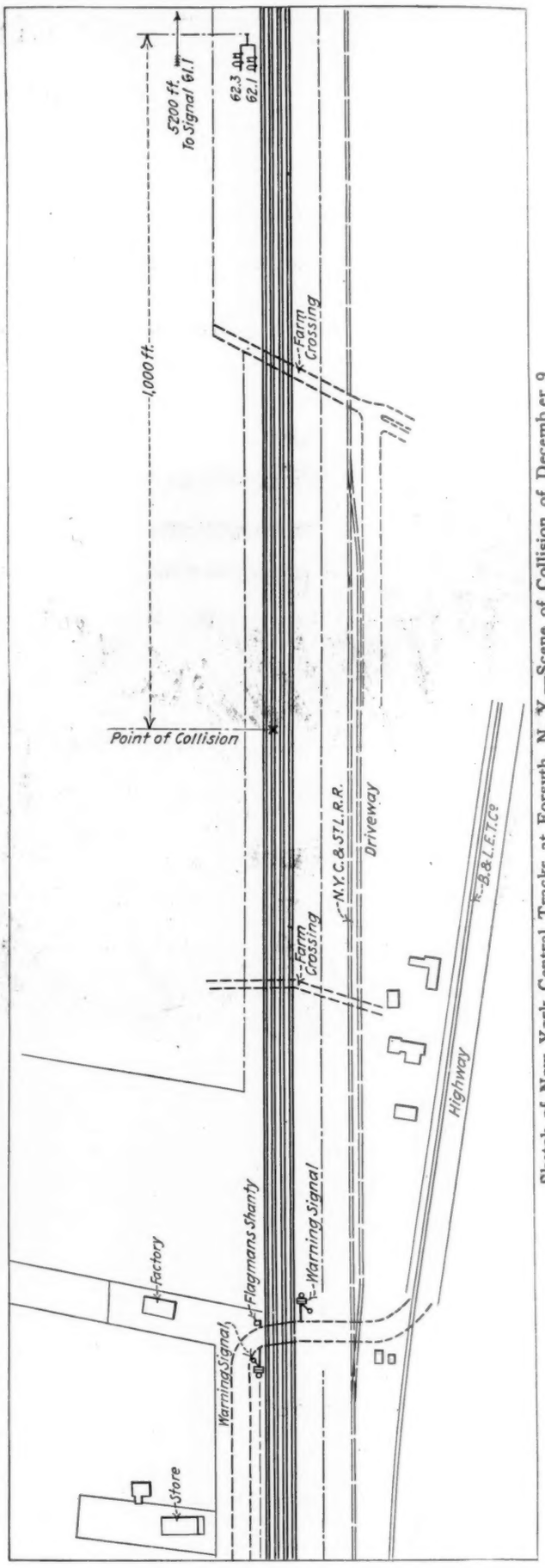
throwing it to one side, where an explosion of gasoline soon started a fire. The train was brought to a stop several hundred feet west of the crossing. The second section made the signal stop at signal 62-1, and was properly flagged and brought to a stop with the engine about 50 ft. from the crossing. After a few minutes the first section departed. In the meantime the flagman for section 2 had gone back to flag the third section.

The engineman of the third section said that he saw the caution indication of signal 61-1, which is a mile east of 62-1 and about 6,500 ft. east of the point of collision; at which time he eased off the throttle, but did not shut off

Keystone

Many Spectators at Scene of Accident

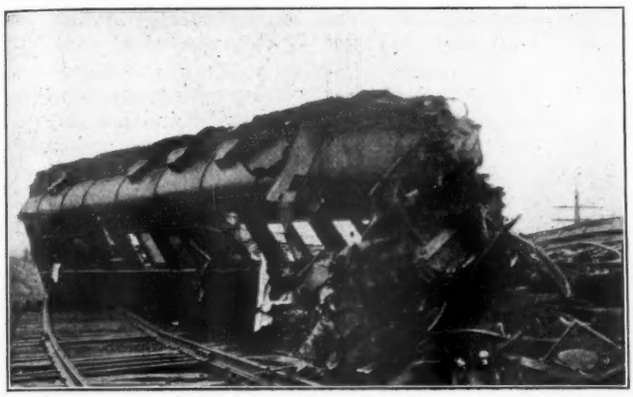
steam or apply the brakes. For some reason not explained he failed to take any action to stop his train until or about the time he passed signal 62-1, which was in the stop position. The flagman's stop signals were evidently seen by the engineman about the same time. The rear of section 2 was about 1,000 ft. west of this signal and in this space of 1,000 ft. the speed of the train was reduced by an emergency application, from an official estimate of between 50 and 55 m.p.h. to 30 to 35 m.p.h. at the moment of collision. There was a dense fog and a drizzling rain.



Sketch of New York Central Tracks at Forsyth, N. Y.—Scene of Collision of December 9

Effects of the Collision

The rear car of the standing train was the combination sleeper and observation car "Farnham," the next car ahead was the "Thoreau," and the next the "President Garfield." The positions in which these cars came to rest as a result of the impact is shown in the accompanying diagram. As engine 3316 struck the rear of the observation car, the right wall stayed with the floor and underframe, while the left side was torn off. The underframe of the Farnham shot under the body of the Thoreau, stripping the trucks and throwing the rear end over the eastbound track, leaning to the right. The rear end of the President Garfield was torn off the trucks and thrown over on the eastbound freight track, knocking this track several feet out of line. The remaining six cars and engine of section 2 were not even derailed, but were driven



International

Wreckage of the Last Car of the Second Section

ahead about 35 ft. The car Farnham was considered demolished at a loss of $38,000; the Thoreau was damaged $16,000 and the Garfield $4,000. The passengers killed were in the forward section of the rear car.

Engine 3316 remained on the rails and received no serious damages, the estimated cost of repairs being $5,000. Total damage to locomotive and cars, $63,185; damage to track, $732.

Subsequent Tests

Inspection of signal circuits and apparatus revealed no faults.

The air brake equipment of the cars and locomotive of Section 3 had been regularly inspected when the engine was coupled on to the train at Buffalo, and worked satisfactorily; and no defects of the brake equipment were revealed by inspections after the collision. Approaching Forsyth the engineman had made a regular service application and then an emergency application. The testimony at the hearings on Tuesday and Wednesday shows that the brake apparatus functioned properly with the most effective results possible within the time available.

Among government representatives present at the joint hearings at Erie, Pa., were W. P. Borland, William L. Thompson, P. W. Jones and B. C. Craig of the Interstate Commerce Commission,, and C. R. Vanneman and J. B. Stouder of the New York State Commission.

THE UNITED STATES CIRCUIT COURT OF APPEALS at St. Louis, Mo., has upheld the decision of Circuit Judge Sanborn denying the application of the Kansas City Terminal to compel the reorganized Missouri-Kansas-Texas Railroad to fulfill the contract entered into with the terminal company in 1906 by the old Missouri, Kansas & Texas Railroad. Under the ruling, the new M.-K.-T. will not be required to continue to pay one-thirteenth of the fixed charges of the terminal company as was agreed to by the former road.

Deadlock on Senate Committee Chairmanship

WASHINGTON, D. C.

SOME CONFIRMATION of the ideas of those who expect comparatively little in the way of important legislation from the present Congress because of the lack of a working majority in any party has been afforded already by the way in which the small minority of "progressive-radicals" and "farmer-laborites" has been able to produce deadlocks, if only temporary, in both the House and in the Senate. It has also been observed that no disposition has been shown so far by the democrats to side with La Follette.

The radical-progressive block in the Senate made a show of strength on December 10 by blocking the completion of the committee organization program, in the same way that the election of a speaker was delayed in the House, by bringing about a deadlock in the selection of a chairman of the committee on interstate commerce, now held by Senator A. B. Cummins. With this exception the list of committees was agreed to by the Senate on December 10 when the vacancies in the Senate committee on interstate commerce were filled by the appointment of Senators Gooding, Idaho; Couzens, Michigan; Fess, Ohio; and Howell, Nebraska, republicans, and Pittman, Nevada; Bruce, Maryland; Dill, Washington; Wheeler, Montana, and Mayfield, Tex., democrats, the membership of the committee being increased to 17 to allow an additional democrat. The holdover members are Senators Cummins, La Follette, McLean, Watson, Fernald and Elkins.

Senator Wheeler objected to the selection of Senator Cummins as chairman and demanded a separate vote. The first ballot resulted 41 for Cummins, 39 for D. Smith of South Carolina, the democratic nominee, and 7 for La Follette, who was supported by the "progressives." The second ballot showed 39 for Cummins, 38 for Smith and 7 for La Follette and the third, fourth, fifth and sixth ballots showed the same as the first. After three ballots had been taken on Monday the Senate went into executive session and the same process was repeated without result on Tuesday. The rules require a majority of all votes cast. Senator Wheeler issued a statement saying that a vote for Cummins is a vote for the Esch-Cummins act, and that the action of the "progressives" was explained by the fact that they were pledged to vote for a radical revision, if not downright repeal of the act. They also feel, he said, that Cummins should not have both the chairmanship of the committee and the office of president of the Senate, which he still retains unless a vote is taken to displace him, but there were indications that the primary purpose was to try and elect La Follette as chairman of the committee that will handle railroad legislation. On the other hand, some of the regular republicans are willing that Cummins should relinquish the office of president pro tem but insist that he shall retain the chairmanship. Those who voted for La Follette were Senators Frazier and Ladd of North Dakota, Howell and Norris of Nebraska, and Johnson and Shipstead of Minnesota.

On Wednesday three more ballots were taken, after which an adjournment was taken until Saturday. On the seventh Cummins and Smith were tied with 40 votes each, while the La Follette votes dwindled to three, Howell, Norris and Ladd. Senators Brookhart, Frazier, Shipstead and Johnson switched and voted for Smith, apparently to offset some democrats who did not vote, and Senator Bruce, democrat, voted for Cummins. On the next ballot Smith received 41 to 39 for Cummins, while La Follette received only two, and the ninth ballot stood 41 for Smith, 40 for Cummins and 2 for La Follette. It was thought that the deadlock might eventually be broken by enough democrats remaining away to give Cummins a majority.

Lord Shaughnessy Dead at 71

LORD SHAUGHNESSY, Knight Commander of the Victorian Order, chairman of the Canadian Pacific Railway, died at his home in Montreal on Monday, December 10, after an illness of only a day; but he had had heart disease, with complications, for some time. Lord Shaughnessy was one of the great men of Canada; and, indeed, of America. Not only was he born in the United States, but the railroad spirit of Canada was in many respects like that of this country, and his career was made as president of the Canadian Pacific, from 1899 to 1918. The railroad presidency, however, important as it was, was not Shaughnessy's whole career. In the first place, the Canadian Pacific was not simply a railroad. With its steamships it became a world-wide enterprise; and as a leader in colonizing the vast western prairies, it was a chief factor in all the life of Canada. Secondly, Lord Shaughnessy was such a strong and leading character that his commanding position in the life of the Dominion was felt in all directions, not alone in the railroad field.

Shaughnessy and his predecessor, Sir William C. Van Horne, came up as Yankee boys in the same surroundings and the younger followed closely in the steps of the older. Van Horne had 25 years' experience on western railroads before going to the Canadian Pacific. He very soon put the young man into a leading position in the management, and when Shaughnessy became president, in 1899, he was already well fitted to take the helm of such a great establishment.

Shaughnessy's experience before he went to Canada had been mainly that of general storekeeper of the Chicago, Milwaukee & St. Paul; and his first position on the Canadian Pacific (1882) was that of general purchasing agent; but in 1884 he was made assistant to the general manager, and rose rapidly. He was made vice-president in 1891. As president, he at once found a great variety of duties as executive head of one of the greatest business enterprises in any country. No amount of experience as an operating officer, pure and simple, would assure success in this wider field; but Shaughnessy had the combination of business man, diplomat and statesman, which made him successful from the start. Not only is the Canadian Pacific Railway, with its boundless colonization schemes and its steamship lines across both oceans, a monument to his ability; he can be called also a leader in all the varied activities for the development of Canada.

His achievements in this great field made him known and honored throughout the Dominion, and among all classes; but it has been said of him that the thing of which he was most proud was the spirit of loyalty which had been developed in the employees and the officers of the railway company.

In 1901, two years after Lord Shaughnessy became president, the capitalization of the railway was $205,000,000 (not including the land grant bonds), and when he retired from the presidency to become chairman of the board, it was $660,000,000. It was only a short time after his accession to the presidency that Sir William Van Horne remarked casually that the railway company needed better outlets for its freight traffic; and in an incredibly short space of time Shaughnessy had decided to purchase 15 Atlantic steamships—the boats of the Beaver Lines. This was the beginning of the railway company's comprehensive and successful campaign to secure settlers for Canada from all over Europe.

From 1891, when he became a director and vice-president of the Canadian Pacific up until almost the time of his death, Shaughnessy was an important influence in maintaining the co-operation of the English financial world with the management in its development of the policies of the road. So closely related has the development of the Canadian Pacific been with the development of Canada as a nation, that his work of interpreting the company's needs to the English investor and English statesmen, undoubtedly also had an important influence in the development of the Canadian nation and of the truly friendly relationships between Canada and the mother country. Lord Shaughnessy's temperament and manner of thought and expression were peculiarly well adapted for the diplomacy required in a work such as this. His sense of humor, a combination—Yankee-Irish-American—trait, was of the kind that softens sharp differences of opinion. The catholicity of his taste made it easy for him to translate the Canadian point of view to the Englishman and the English point of view to the Canadian. The integrity with which the affairs of the Canadian Pacific were conducted inspired confidence both in England and Canada and was undoubtedly an influence for good in Canadian political life.

Lord Shaughnessy, K.C.V.O.

Lord Shaughnessy was a leader of Canadian life in the strenuous years of the great war. He placed the resources of the railway and its facilities at the disposal of the British Government at the outset, as a matter of course; and he was a tower of strength in the recruiting of soldiers.

He was a member of the Executive Committee of the Canadian Railways War Board of which the chairman was Sir William Mackenzie and the other two members, Alfred H. Smith and H. G. Kelley.

Thomas George Shaughnessy was born in Milwaukee, Wis., on October 6, 1853, and entered the employ of the Chicago, Milwaukee & St. Paul at the age of 16. At the age of 26, he was made general storekeeper and in October, 1882, at the age of 29, he resigned and went to the Canadian Pacific as general purchasing agent. He was made assistant to the general manager of that road in 1884, assistant general manager in 1885 and assistant president in 1889. His subsequent career was as indicated above. He was knighted in 1901, was made Knight Commander of the Victorian Order in 1907, and was raised to the peerage in 1916.

One Way of Getting Even With the Railroad

This Imaginary Conspiracy Presents the Fuel Wasting Aspects of Many Practices in a New Light

By a Locomotive Fireman

YOUNG MAN, if the railroad company has run over your pet cow and won't settle, smashed your automobile when you tried to beat a train to the crossing, or done anything else that makes you feel that blowing up a bridge or burning a string of box cars is the very least that will give you sufficient retaliation, don't do it. It is too crude. Besides, perhaps some of your relatives coming to pay you an unexpected visit may be carried through the damaged bridge. A mail order house may have shipped your order in the very cars you burned. Then, too, you probably will get caught and convicted, with a resultant penalty of two to fourteen years at rock crushing.

Use your gray matter. Do something original. Follow me and I will show you a safer and more efficient method of burning holes in the profits of the railroad, which, I take it, is the ultimate aim of your nefarious ambitions.

Get a job as a locomotive fireman on that railroad. Nobody will get wise to you. They will even help you. Who? Why, most everyone working on that road. Here is a partial list of your partners in crime. Engineers, conductors, brakemen, switchmen, yardmasters, road foremen of engines, trainmasters, car inspectors, air inspectors, fire-up men, roundhouse and shop forces, and last, but not least, the railroad companies themselves. Please bear in mind that you cannot pull off all the following stunts on all railroads, but you can pull most of them on any one you may pick out.

This is one of the papers entered in the International Railway Fuel Association prize paper contest. In it the writer has adopted an original method of treatment because, he says, "It sometimes takes severe jolting and unusual handling of a subject to awaken corporations and individual employees from the idea that simply because vast improvements have been made over previous performances, conditions are 'good enough,' or 'as good as could be expected'". To protect the writer, the *Railway Age* has withheld his name.

Not knowing of any railroad that is paying extraordinary dividends over any of its competitors, one may infer that they are all burning more fuel than is necessary. I have burned car load after car load of coal which I knew, even before I put it in the firebox, was a waste of my energy as well as a waste of coal, and you can do the same. Even if all the railroad officials in the country should read this and start immediately to block your game, you can get in a lot of deadly work before they can possibly plug all of your opportunities.

Now, let's start. All you need is a good set of teeth, a broad back and to be the first applicant after the extra board gets short. Never mind if you are a misfit, so much the better.

Your first education in handling a scoop will be neglected. Instead of taking you to the cinder pit and fire-up house, have you practice with a scoop on an engine at rest, incidentally teaching you the different depths, sizes and types of the different fireboxes you will use, the way to work injectors and lubricators, etc., they start you out on the road with an older fireman who does not take time to tell you these things. Perhaps he is older by only a few days and is not sure of them himself.

After you have ridden a few miles and still none of these wheels and levers have a familiar look, you feel you must get hold of that scoop or you won't learn a thing on this trip. He lets you put in a fire. He watches you closely to see if he is going to get any assistance out of you. If you try to throw your whole body into the firebox when you throw in a shovelful and all the coal gravitates to the middle of the firebox and none of it goes to the corners and sides and you just cannot make it go there when he tells you to, your practice for this trip is about over because he takes the scoop before you spoil his fire and make his work harder. The rest of this trip you can learn the road and watch how he does it. You are really taking your second lesson before you have had more than an inkling of the first.

After making three or four round trips, one of which has been tutored by the fireman instructor, you are qualified to begin wasting coal on your own hook. Throw in a bunch of large chunks and then cover them with slack as you would smother a steak with onions. Throw in some more; the engineer will drop her down a few notches and help you burn it out. Not until the water begins to get low in the glass will he advise you to lay off the scoop for a little while. Later on you will find this same engineer helping you burn holes in the company's profits by pet schemes of his own: carrying water too high, excessive working of the engine, not putting on the injector until after the pop has lifted or even closed again, etc. As you progress in knowledge, you will find other ways that the engineer could, but does not, block your game.

Now you are wondering how a conductor is going to help you waste coal? Watch him in picking up and setting off cars. He will require two and sometimes three moves of the engine where one would do. You will even get to know which of the conductors can be relied upon to do this.

The switchmen and brakemen have about the same methods of helping you. Watch them pull cars with brakes set, most generally hand brakes. When switching cars, they give a signal to stop as soon as you have passed the switch you are to use. You shove a car in and then have to pull ahead again to make the next movement. You will notice several uncalled for moves before you get that cut put away.

The next time you meet the yardmaster, do not do anything to get him angry with you; he will help you without that. Do you see that engine bringing 15 loads into your yard? Watch them go to the far end of the track. Thirty minutes later you will go and bring them back. Fifteen loads 70 car lengths up and 70 car lengths back, besides your 70 car lengths light. More coal wasted than your pops would use that whole day. Overlooked his hand? Possibly, but after this has been repeated dozens of times you come to feel that he has the habit.

Another of his schemes is to run a long string of cars into

the eastbound yard when three-quarters of them are billed westbound. An hour or two later you can cross them over instead of only bringing back one-fourth of the string. When this only happens once, it doesn't help you so much, but when it is a daily occurrence you will find it gets rid of lots of coal.

The air inspectors will aid you in their own way. To verify their assistance, wait until your train stops somewhere and then go back and examine that leak. See if the gasket is not hardened—if it has not been worn out for a long time—or if the pipe has not been loose for weeks.

The car inspectors, too, may be relied upon. When taking cars from terminal to gravel pit, stone quarry or coal mine, upon arrival you will find some of them with such large holes in the floor that they cannot be repaired at that point to hold the lading and have to be hauled back in the evening.

The men that fire up locomotives have a bit of aid for you. When you get on your engine, look your fire over. Almost bad enough to require cleaning. Looks like a ton or two and burning green and blue in spots.

Others in the shops are looking out for you, too. The valve setter, for instance. Do you suppose he has a share or two in a coal mine? You will feel confident of it when you get an engine that has lost one or one and one-half exhausts out of four. Don't try to get entirely even on this trip. You will get another chance at her later. She has been this way for months.

Then there are the fellows that fix steam leaks. Your engineer reports the piston rod packing blowing. Next trip you have new piston rod packing rings and swab. Foiled? Not long. In a few days it's leaking again. He did not take time to close the guides and the crosshead is oscillating like the cylinders of a logging engine. It takes them a half a day or so to close these guides, where a couple of hours should be enough. That is why she did not get a lasting repair. When it commences to leak again, you won't mind the pound so much.

Perhaps you have already heard from the gentlemen that are supposed to keep the cylinder and valve packing rings tight.

Your never failing helpers are the air sanders and the men that are supposed to see that they work. Sand, you know, was put on an engine to save coal. Doesn't sound good to you? Do not knock the sanders off or plug them with waste. While working beautifully in dry weather or when emerging from the roundhouse, they are not apt to interfere with your plans when it rains and they are most needed. Sometimes it is a stone jammed into the air nozzle, but more often it is moisture—either condensation at the lower end of the pipe or water carried over from the main reservoir. Other times rain has gotten by the gaskets in the sander proper. The sand pipe may be too short or is not in line with the rail. Ever notice how insecurely they are put on in the first place?

This trip they are working nicely. Not much slipping today. Still you are very apt to run out before you reach a new supply. When you arrive at the coal wharf which is located between terminals, you are told that the supply has run out. On the other hand, there may be plenty of sand but you cannot get any because sparrows have built a nest in the supply pipe and sand will not pass out. The railroad is going to pay another installment on that cow during the remainder of the trip.

The operator or the interlocking towerman is occasionally a good fellow and supports you in your role of villain. After your train has stopped because the signals are set against you, go up and see if he is asleep. He will hear you coming up the steps and proceed to give you an excuse, which later on you find to be without foundation. Then, too, there is the distant signal that he has always set against you. In bad weather after your train has slowed up only to find that everything at the tower is clear and you start to pick up speed again, just credit him with the extra coal. You know from past experience that had it been clear, either he was laying off or there were some railroad officers at his tower, possibly with a trap for you.

Now for some others. Perhaps you would say the railroads themselves. Take the equipment and tools furnished—the small indistinct or black-faced steam gage, for instance. At night, after looking into that nice white fire, you look at the gage to see if your steam pressure is rising or falling. You can not tell, and just to make sure you put in more coal. After a while there is nothing left to do but clean the fire. If there had been two good steam gages the engineer would have been watching his gage closer and you would not have had the nerve to pull this one. A 16-in. gage devoted to 250 lb. steam pressure would speak so loudly to you that you would not have the nerve to let her drop back even if you were thinking of your cow at the time.

Avoid engines equipped with arches and superheaters; also those with two water glasses.

Stick to yard engines and those places where you do not have an individual shovel. The one furnished will probably have a corner gone, cracked at the heel, or a poor handle. This is a dandy chance. Your conscience will charge the waste to the shovel.

In the programming of passenger and freight trains out of terminals, you will find many hours in freight service where you may while away the hours by pumping air, simply because they have the habit of calling you just whenever the train is ready, regardless.

Some morning when you are called to take 10 to 50 empties out to an industrial plant, don't complain because you have a grade to ascend. Bear in mind that these same cars came right down this grade last night, right by the tracks where you are going to put them, but no one had given orders to have them set off. Ten to fifteen extra miles mean quite a bit to your cause in this case, especially if it is the customary thing.

Now, when the road foreman of engines tells you to read up so that you may learn how to save coal—perhaps he will not take steps for years to find out whether you have or not—you will find a great deal of matter relative to nozzles and the back pressure due to them. They will tell you a great deal relative to sizes, describe variable nozzles and automatic nozzles and how much coal is used in making draft.

This is a valuable aid to you and one that will be with you for some time. They have been so busy figuring sizes and effects that it does not seem to have entered their heads that there might be another way of getting around the difficulty. There is another way, and when it is developed the question, "What is the effect of back pressure due to nozzles?" will be left out of your examination papers. But surely, young man, you have wasted enough coal by this time to have given you full and complete satisfaction for the loss of a whole herd of full-blooded, registered, pet cows.

THE THREE LAST CASES against the Michigan Central, resulting from the wreck of the Hagenbeck-Wallace circus train at Ivanhoe, Ind., on June 22, 1918, will be tried in the Federal Court at Hammond on April 15, 1924, before Judge A. B. Anderson. Eighty suits, involving claims for $500,000 damages, were thrown out of court at Hammond following the decision of the Indiana Appelate Court in the case of J. F. Diereck, against the railroad company in the early part of this year. At the trial the railroad was able to show that a contract existed between the carrier and the circus management whereby the circus was to furnish the cars and the railroad would furnish engines and crews, and lease the use of the right-of-way to the circus, the circus, in consideration of a reduced rate, assuming all liabilities for injuries to its employees or equipment while in transit.

New York Railroad Club Holds Annual Dinner

Record Attendance at Well-Planned Affair—Dr. W. S. Myers on Labor Union Responsibility

THE NEW YORK RAILROAD CLUB held its annual dinner at the Hotel Commodore, New York, on December 6. A total of 2,637 persons were served, marking the affair as one of the largest ever held in the country. The diners filled completely the main floor and the balcony of the grand ball room, which compares favorably in size with those of other large New York hotels, and, in addition, annex ball rooms at either end of the grand ball room were completely filled and there was an overflow of two large tables outside the door of one of the annexes.

F. T. Dickerson, secretary and treasurer of the Central of New Jersey and president of the club, acted as toastmaster and Dr. William Starr Myers, professor of politics at Princeton University, was the principal speaker. John W. Raper, editor of the Cleveland Press, made a humorous talk. The addresses of Mr. Dickerson and Dr. Myers were broadcast by radio from Station WJZ of the Westinghouse Electric & Manufacturing Company.

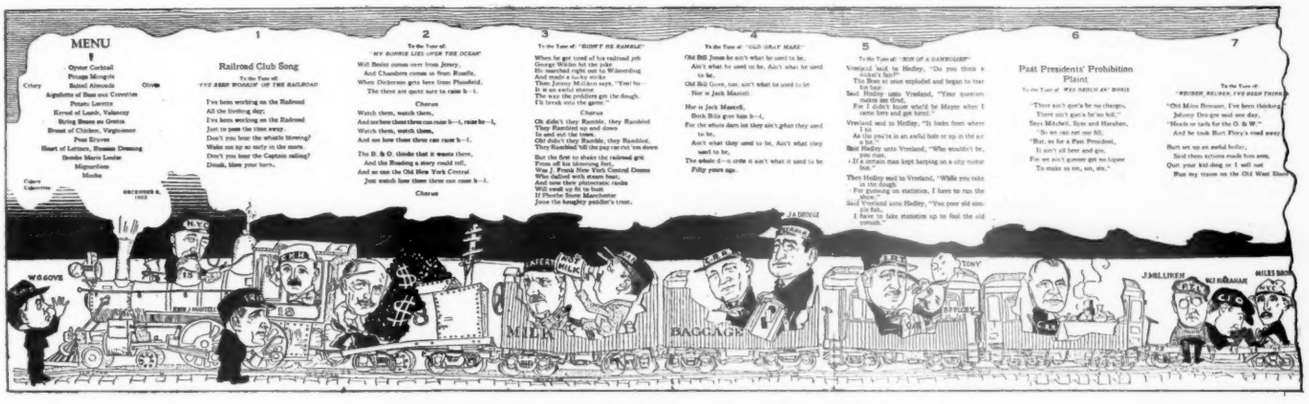
Affair Carefully Planned

Because of the requirements of the radio broadcasting station, it was necessary that the dinner be definitely scheduled and, furthermore, that the schedule be strictly adhered to. Due to the care of those in charge, this condition was fulfilled to the letter. Ordinarily at such affairs it is not customary to open the doors to the dining hall until the meal is ready to be served. On this occasion, however, it was realized that the lobby would not accommodate all the guests at one time, so a bugler was stationed in the lobby with instructions to blow the mess call, thus giving the signal for the doors to be opened, as soon as there were any signs of overcrowding in the lobby. This was done and, as a consequence, in spite of the large gathering, there was no uncomfortable overcrowding and, moreover, all the guests were at their places when the serving was scheduled to begin. Similar foresight characterized other arrangements for the evening.

Clever Songs and Hearty Singing

The menu and program was published in the form of a time table folder bearing the following legend on the back: "Time Table of Through Trains for Desert of Sahara, New York Railroad Club, F. T. Dickerson, Gen. Pass. Agent—Time Table of 1872 Corrected to December 6, 1923, Leaving Commodore Terminal Every Minute on the Minute." In addition to the menu and program, the folder contained words paraphrasing those of well-known songs which were sung in chorus to their proper tunes. These songs were largely made up of humorous and pointed allusions to prominent members of the club and were the work of Frederick V. Green, assistant to the president of the Pittsburgh Testing Laboratory. Below the songs and serving as a decorative border, the folder had a drawing of a rather ramshackle train, manned by the usual train crew, and, in addition, a considerable number of apparently superfluous employees. Each drawing of an employee was a caricature of some well-known member of the club. A portion of the inside of this folder is shown in an accompanying illustration.

These songs were sung in chorus by the diners, and right heartily too, during the intermissions between courses—and once again the foresight of those in charge was responsible for successful performance. Instead of having only one leader or none at all for the singing, thereby making it almost impossible for those in the annexes and the far corners of the room to keep in unison with the orchestra, several trained leaders had been engaged and these were placed in strategic locations in the annexes and the main hall, so that they could see the leader-in-chief and synchronize their leading with his and so they could be seen by all the diners about them. Thus were the voices of all the guests made to thunder out together, in time and on the same song. Experience of previous dinners without singing leaders gave far different and less satisfactory results.



A Portion of the Inside of the "Time Table"

Those in Charge

In direct charge of arrangements for the dinner was the club's dinner committee, of which J. F. MacEnulty, vice-president of the Pressed Steel Car Company, was general chairman. Other members of this committee were: W. G. Gove, superintendent of equipment, Brooklyn-Manhattan Transit Company; C. C. Castle, first vice-president, National Railway Appliance Company; and F. O. Schramm, assistant secretary, Pressed Steel Car Company. H. M. Norris, secretary to the president and general manager of the Interborough Rapid Transit Company, was chairman of the committee on seating and invitations. David W. Pye, president of the Tuco Products Company, headed the

entertainment committee. William J. Moody, treasurer of the Erie, was chairman of the committee on printing. Ellsworth Haring, president of the Elhar Steel & Metal Company, was chairman of the reception committee and Roswell P. Cooley, Eastern manager of the Vapor Car Heating Company, was vice-chairman. The chairman of the publicity committee was Roy V. Wright, managing editor of the *Railway Age*.

A number of distinguished men were present as the guests of the club. Among them were several chief executives of railroads and railway and supply associations, members of the Labor Board and members of state public utilities and transit commissions.

The toastmaster, F. T. Dickerson, in opening the program of the evening, spoke of the achievement of the railroads during the current year and bespoke for them a square deal at the hands of the public. He was followed by Dr. Myers, whose address is given in abstract below; Dr. Myers, in turn, was followed by John W. Raper, whose talk was entitled "What the World Needs—More Humor."

The Railroads as the Public Views Them

By William Starr Myers
Professor of Politics, Princeton University

(Following is an abstract of Prof. Myers's address at the annual dinner of the New York Railroad Club):

You know in general what the railroad men of this country are thinking. You have placed before you, and sometimes not altogether to your pleasure, the views of railroad labor. It has occurred to me that perhaps it may not be amiss if I should undertake to lay before you, as I can gather it, what the people of this country may be thinking.

We hear about the discontents of the farmers of the Northwest, and we have no doubt they have a right to be discontented. When the farmer finds that what he sells is going down in price and what he buys has come up in price, and when he finds in addition that it is very easy to get spokesmen who can speak for him whether they know what they are speaking about or not, then we come to the magnificent result of the judgment of those spokesmen; and you know what it is. It is the same old cure for every present-day political, economic and social ill in the United States, or one of them: Take it out on the railroads. In other words, if the farmer is in trouble, lower railroad rates.

Again we find a difficulty in the coal mines of Pennsylvania. Far be it from me to enter into that. I become lost when I undertake to do it, as most American people do, only we know we pay more for coal. But we are also aware of the fact that the difficulty was not settled in September, and the only suggestion to remedy the trouble is again, take it out of the railroads; reduce rates.

Evils of Government Ownership

There seems to be in the back of the mind of most people who are making an attack upon railroads, that, after all, if the worst comes to the worst—and they think it is the best coming to the best—we can have government ownership of the railroads—which God forbid. They are unaware of one thing, and that is that practically every country—I might almost say every country, but I wish to be conservative—that has had government ownership of railroads has had it practically at a failure. Look over Europe today. Look at the conditions with regard to government-owned railroads in France, in Italy, in Germany—aye, in Switzerland, that happy hunting ground of self-appointed reformers—and you will find difficulties, overmanning, bad service, and financial deficits.

Any industry, any great financial interest that requires inventiveness or originality, cannot succeed under government ownership because originality and inventiveness are the last things that we have a fair right to expect from government management. Why? Because the man who strikes out on a new line is not only held down by the dull binding chains of bureaucracy, but he has got to go against opposition, for it is only human nature and natural for the politician to try to conduct things on a very level, quiet plane. That man, if he strikes out on a new line does it at his own risk—if he fails he takes the consequences, and if he succeeds, he does not get the rewards.

Employees Under Government Ownership

I felt in war times that if our railroads were to continue under the control of the government, it would be the most unfair thing to the railroad employees. Why? Their future promotion would have to depend entirely on either one of two things—civil service tests, or favoritism. Civil service at best is a guarantee against, or a partial guarantee against incompetence; and turning it around on the positive side, it is a guarantee of mediocrity at best, and mediocrity never made a success of any great business or commercial transportation enterprise, that I know of, in the history of the world.

Now take it the other way around: Suppose you allow promotion for merit. Does that not mean political merit? Does it not mean that inevitably the hand of politics will get in? That is practically what happens on almost all other occasions.

The Life-Blood of the Country

We have got to realize that transportation is the life blood of any country. The trouble in Russia today is lack of transportation. The trouble in China today is lack of transportation, with only seven thousand miles of railroads for that enormous republic. That republic, or Russia, cannot become communities—and remember community feeling is the basis of public opinion, and the public opinion is the motive force of democracy—until they have transportation.

I have always felt that George Washington was far greater as a statesman than as a general. People are not apt to realize that during the years following the resignation of his commission at the close of the American Revolution, and before his assumption of the Presidency of the United States, he was busy studying the problems of transportation. In those days it meant waterways, whether rivers or canals, and roads and turnpikes. He was busy working out a scheme to link the Mississippi Valley with the East, because he felt that only on that basis would it be possible to hold this country together.

Transportation is the life blood of the country, and the question is, can the railroads get a square deal? I think they can on one condition, and that is that the American people as such are awakened to its importance. The problem, as I see it, for railroads today, is to get the ear of the people.

Labor Unions Here to Stay

While I am speaking of various discontents, I want to refer to the labor question. First of all, I think you will find that the common feeling of the average people today is

that labor unions not only are legitimate, but they are here to stay. They have got to be recognized as a definite institution in this country. The people also feel that they are necessary for the protection of the men. On the other hand, the question is now coming up as to whether labor unions, like any other organizations, should not be brought within public control.

We should realize the fact that, after all, certain people have an erroneous idea of the whole question of capital and labor. Since 1830, some thirty-five million immigrants have come to this country. Not for one moment would I deny the great contributions they have made to this country. On the other hand, at a conservative estimate probably 90 to 95 per cent came to this country from countries in which class government not only existed, but was recognized as a legitimate kind of government, and a great many of them came to this country with the idea of getting away from the condition in which they were the unfortunate class, and becoming members of a fortunate class—a perfectly laudable and legitimate ambition. But, unfortunately, as I believe, they have brought with them the class idea of government, and frankly I believe that any country which in its political institutions and its government recognizes class, is not a democracy in proportion as it recognizes class, for class and democracy are contradictory terms. Perhaps this explains the bloc type of legislation in Congress.

Capital and Labor Must Stand Together

Now the idea has come in, I think, unfortunately, that the relations of capital and labor are a class struggle. And that is what I myself do not believe. Capital and labor have got to stand or fall together, and the sooner they realize it the better. The difficulty is in a narrow, little autocracy of certain capitalists among all the capitalists, and a narrow, selfish little autocracy of labor leaders among all labor, each one of whom is trying to get something for himself at the expense of other capitalists and other labor, and at the expense of the general public. Now, if that is the case, it seems to me that since the railroads have been brought within governmental control, labor unions also will have to be brought within governmental control. After all, they are labor trusts.

I want to suggest briefly certain things which it seems to me the American people are beginning to think. I am going to lay them before you, because, remember, the masses rule this country today, and the masses must be enlightened, and what the masses think, today, the government may think tomorrow. You and I and other people who are interested in the solution of problems must realize the fact that the American people have got to think their way through, or else they will be stampeded. They will only think their way through when they are given a chance to have instruction, and you gentlemen can give it.

The public has about come to the conclusion that there must be the same standard of honesty both on the part of employer and employee, capital and labor. Collective bargaining has practically become an accepted thing, but if the employer enters into a bargain he does not dare break his word. Therefore I hold that labor should not break its word, even though certain members of labor unions, when they do not strike, take vacations. And not only must there be the same standard of honesty, but if there is an honest eight hours' pay, there must be an honest eight hours' work given for it.

Responsibility With Power

And then again recognizing labor unions with the power they have and that legitimately is theirs, it seems to me we should return to the old Anglo-Saxon principle upon which this country is built: That with power should go responsibility, and that every right is correlated with a duty. Therefore the only solution I see is the incorporation of the labor union to make it legally responsible for the rights it has.

In the third place, I could not, as an American citizen, who is interested in and believes in the foundations of this country, stand for anything else than an open shop, and by the open shop I do not mean a shop open only to non-union men. I mean a shop open to union and non-union men alike. The fight for the open shop in different lands has been one of the notable movements of history. Take ancient history: It is a fight for the open shop among races. Take medieval history, it is a fight for the open shop in religion. Take modern history, it is a fight for the open shop in politics. That has been the secret of the development of the whole world in its civilization. The open shop is the only restraint against autocratic power and degeneration and decay; because just as soon as you take away the competitive pressure from over individuals, you take away the incentive for improvement.

Democratic Industry, Not Industrial Democracy

And then again let me say I do not merely stop at the open shop, but I believe we should have democratic industry, but that is an entirely different thing from industrial democracy. In getting democratic industry, it seems to me we have come to one of the main criticisms, one of the popular criticisms, of the labor unions today. In general, I think I can say, the American people have pretty good confidence in the American laboring man as such. They feel it is not the fault of the rank-and-file of labor, but of certain labor leaders. And they are beginning to distinguish between labor men and labor leaders.

When I meet working men, I talk to them and I find that in general there is one of two things: Either they are ignorant of the general policy of their union in the majority of cases, or else they know of it and are helpless to change it. And it comes from two things. In the first place, I believe in a large number of labor unions the election of the officials is not democratic. In other words, it comes pretty close to a closed corporation. The election should be democratic. In the second place, I feel that the finances should be open and the use of money collected by these large aggregates of men, with the power it entails, should be known to the general public. I think when the Interstate Commerce Commission can inquire into the finances of railroads, the only safe thing is to let them inquire into the finances of the labor unions.

Labor As a Commodity

Again, it seems to me there must be some means—and the labor union can work this out better than any one else—to reward individual excellence. One of the tragedies of the whole labor situation today is the fact that the labor leaders are making the plea, and I sympathize with it, frankly, that labor should not and must not be a commodity. Labor is composed of human beings and should not be treated as a commodity. I agree with that, but, gentlemen, remember labor is going to be a commodity, and it is a commodity from the economic standpoint, whatever it is from the human standpoint, unless you can distinguish between individuals. Otherwise there are so many head of laborers, and they are treated as such. It is only as you can recognize and reward the individual laborer that you can prevent him from becoming a commodity, because you put a premium on brains and ability.

One of the greatest and saddest tragedies today—I say it in all sympathy and all seriousness—is the struggle of labor leaders to prevent labor being a commodity, when unconsciously they are forcing it to be a commodity by leveling down the work of the laboring man to an average of least efficiency.

We have got to remember, after all, gentlemen, that the

only way to increase the prosperity of this country—the only way to increase wages of labor—is not so much monetary, but by what wages will buy, and the only way to increase that is to produce more; when more is produced, there is more to go around, and it is only by increasing production that we are going to increase the prosperity of this country.

Railroad Bills in Congress

WASHINGTON, D. C.

MANY BILLS relating to railroads and other transportation matters have been introduced in Congress since the opening of the session, most of which represent merely the reintroduction of bills on which no action was taken at the last session. Most numerous were bills to abolish the Pullman surcharge and to abolish the Railroad Labor Board. Senator Capper's bills to amend the Transportation Act were reintroduced with a new provision providing for a repeal of the consolidation provisions of the law, and Senator Brookhart reintroduced his bill providing for valuing the railroads on the basis of the market value of securities. The Senate bills include:

By Senator Bursum, S. 34, to prohibit the collection of a surcharge in connection with the payment for parlor or sleeping car accommodations.

By Senator Lodge, S. 73, to prohibit the collection of a surcharge.

By Senator Capper, S. 89, amending Section 1 of the interstate commerce act; S. 90, to repeal paragraphs 4, 5, 6, and 8 of section 407 of the Transportation Act (relating to consolidation); S. 91, to repeal section 15-a of the Transportation Act, and paragraphs 3 and 4 of section 13.

By Senator Gooding, S. 186, providing for a reduction of 33⅓ per cent in rates on products of agriculture and live stock, and S. 187, to amend section 4 of the interstate commerce act.

By Senator Hale, S. 265, to prohibit the collection of a surcharge.

By Senator McKellar, S. 428, directing the Interstate Commerce Commission to establish a system of mileage books to be issued to commercial travelers at a reduced rate.

By Senator Brookhart, S. 745, to amend the Interstate Commerce Act and the Transportation Act.

By Senator Borah, S. 791, to provide for free tolls for American ships through the Panama Canal.

Bills introduced in the House include the following:

By Representative Rogers, H. R. 15, authorizing the President to declare an embargo on coal.

By Representative Foster, H. R. 30, to abolish the Railroad Labor Board.

By Representative McClintic, H. R. 79, to restore to state commissions certain jurisdiction exercised over intrastate questions prior to the war with Germany.

By Representative MacGregor, H. R. 89, to repeal Title III of the Transportation Act.

By Representative Raker, H. R. 126, to provide a penalty for trespassing on railway trains; H. R. 139, to create a national department of highways; H. R. 147, requiring railways to reimburse employees for property losses sustained by moving terminal or division points.

By Representative Tincher, H. R. 171, providing for the transfer of the powers and duties of the Railroad Labor Board to the Interstate Commerce Commission and abolishing the Railroad Labor Board.

By Representative Kahn, H. R. 312, amending section 1 of the Transportation Act.

By Representative Rogers, H. R. 418, declaring an embargo on anthracite coal.

By Representative Blanton, H. R. 436, to prohibit combinations or agreements to interfere with interstate commerce (by strikes).

By Representative Clancy, H. R. 465, to prohibit the collection of a surcharge.

By Representative Madden, H. R. 520, to amend section 307 of the Transportation Act; H. R. 521, to amend section 302 of the Transportation Act; H. R. 522, to amend the interstate commerce act to prohibit discrimination on account of race, color or previous condition of servitude; H. R. 523, to amend sections 301 and 307 of the Transportation Act.

By Representative Newton, H. R. 527, to prohibit the collection of a surcharge.

By Representative Vinson, H. R. 581, to decrease rates, fares and charges of railroads.

By Representative Hawes, H. R. 688, to provide for regional commissions; and H. R. 689, to provide a more adequate system of regulation for the railroads through the creation of seven regional commissions to co-operate with the Interstate Commerce Commission.

By Representative Woodruff, H. R. 693, to prohibit the collection of a surcharge.

By Representative Wurzbach, H. R. 715, to prohibit the collection of a surcharge.

By Representative Wolff, H. R. 717, to amend the Interstate Commerce Act.

By Representative Moore, H. R. 718, to amend the Carmack amendment of the act to regulate commerce.

By Representative Brand, H. R. 719, repealing all laws which deprive the states of the right to fix intrastate freight and passenger rates.

By Representative McLaughlin, H. R. 743, to provide that all meetings of the Federal Reserve Board and the Interstate Commerce Commission shall be open to the public.

By Representative Graham, H. 2685, to prohibit the collection of a surcharge.

By Representative McLaughlin, H. R. 2697, amending section 1 of the Interstate Commerce Act.

By Representative Graham, H. R. 2698, to repeal section 15-a of the Interstate Commerce Act.

By Representative McLaughlin, H. R. 2699, to repeal the Interstate Commerce Act, and H. R. 2700, to repeal the Transportation Act.

By Representative Newton, H. R. 48, directing the committee on interstate and foreign commerce to make a thorough investigation of the advanced freight rates on lignite coal in certain states.

Memorials asking Congress to repeal the Esch-Cummins law were submitted by the legislatures of Wisconsin and Nebraska.

By Representative Hayden, H. R. 2823, to amend section 4 of the act to regulate commerce.

By Representative Ward, H. R. 2870, to provide for the prompt adjustment of claims against common carriers for loss and damage of freight.

By Representative Garber, H. R. 3195, to amend section 4 of the act to regulate commerce.

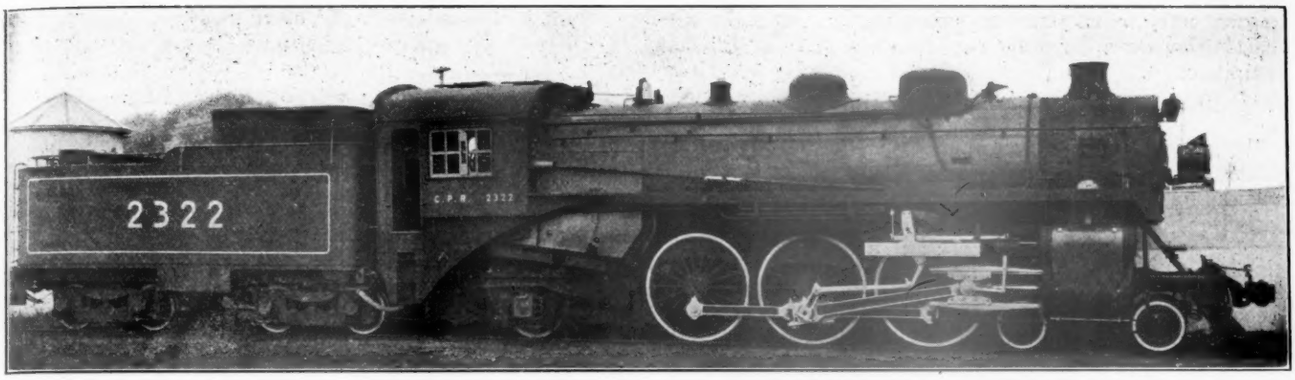
By Representative Burdick, H. R. 3196, to prohibit the collection of surcharge.

By Senator Borah, S. 940, to amend section 4 of the act to regulate commerce.

By Senator Harris, S. 958, to amend the interstate commerce act.

Senator Cummins is working on the details of his bill to expedite railroad consolidations, and it is possible that it may be introduced next week.

THE MOVEMENT OF FLOUR eastward from Port Arthur and Fort William this year has been the heaviest in the history of those ports, the Canadian Pacific alone having sent east by steamer up to the end of October about 240,000 tons.



Class G-3c Pacific Type Locomotive for the Canadian Pacific

Canadian Pacific Standard 4-6-2 Locomotive

Heavy Pacific Type of Attractive Appearance, Good Riding and Excellent Steaming Qualities

IMPORTANT PASSENGER TRAINS on the Canadian Pacific have been handled for many years by locomotives of the Pacific type with driving wheels of 75 in. and 70 in. diameter. For quite a period locomotives having a tractive force of from 30,000 lb. to 35,000 lb. were sufficiently powerful to meet traffic conditions, but an increasing number of passenger cars to a train, greater weights of the cars and a desire to furnish first-class service made it necessary to increase materially the power of the locomotives. After a thorough study of the situation, two new designs of Pacific type locomotives were brought out in 1919 to meet the requirements of operation even in severe winter weather and to conform to the limitations of bridges and right-of-way restrictions. The two designs were similar. One, known as Class G3, had 25-in. by 30-in. cylinders, 75-in. driving wheels and a tractive force of 42,600 lb. The other, known as Class G4, had 24½-in. by 30-in. cylinders, 70-in. driving wheels and a tractive force of 43,700 lb. In the period of 1919, 1920 and 1921, the Canadian Pacific built at the Angus shops, Montreal, 10 locomotives of Class G3, numbered in the 2,300 series, and 18 locomotives of Class G4, numbered in the 2,700 series. Both classes were given long tests under all kinds of conditions and on many divisions. As a result of these extended tests, which included careful observations of the actions of all parts of the machinery and boilers, a somewhat modified design, known as Class G3c, has been completed and adopted as the standard Pacific type for heavy main line passenger trains. Sixteen locomotives of the new design have been built this year by the Montreal Locomotive Works and are now in service.

Ample Boiler Capacity Provided

These new passenger locomotives which are numbered 2,310 to 2,325 inclusive, have 25-in. by 30-in. cylinders, 75-in. driving wheels, 2,252 cylinder horsepower, and a rated tractive force of 42,600 lb. The weight in working order of the engine alone is 300,500 lb., of which weight 181,500 lb. is on the drivers, 60,000 lb. on the front truck and 59,000 lb. on the trailing truck. These weights give a factor adhesion of 4.26 and a locomotive weighing 133.7 lb. per cylinder horsepower. The tender is of the rectangular water bottom type, weighs 188,500 lb. in working order and carries 8,000 Imperial gallons (9,600 U. S. gallons) of water and 12 tons of coal.

Adequate boiler capacity is of prime importance if a locomotive is to handle satisfactorily passenger traffic on the Canadian Pacific where trains of 12 or more heavy passenger cars are not unusual. In many places the movements of other trains and, in fact, the successful operation of a division, depends upon passenger trains being kept on schedule. While reserve boiler capacity is always an advantage, it becomes of prime importance when the thermometer is below zero, the coal is frozen and mixed with snow and an increasing demand for power to meet greater frictional and train resistances comes at a time when a large amount of steam is required to heat the train and to run the air compressor at an increased speed to supply air for the extra brake pipe leakage. An appreciation of these conditions led to the adoption of a boiler which has a capacity of 101.8 per cent when calculated by Cole's ratio. All boiler details have been carefully proportioned—grate area, firebox volume, heating surfaces, gas area and air admission areas. The engines are consequently free steamers and have demonstrated their ability to furnish ample steam to meet all requirements.

In accordance with previous Canadian Pacific designs, the boiler is of the straight-top, extended wagon-bottom type with a combustion chamber 26 in. long and radial stays. The steam pressure carried is 200 lb. per sq. in. There are 205 tubes, 2¼ in. diameter, and 38 flues, 5½ in. diameter, and 18 ft. 6 in. long. The evaporative heating surface is 3,530 sq. ft., which includes 298 sq. ft. in the firebox, combustion chamber and arch tubes and 3,232 sq. ft. in the tubes and flues. The type A superheater has a heating area of 830 sq. ft.

The barrel of the boiler has three courses, the first one having an inside diameter of 78¼ in. The dome, which is 33 in. inside diameter, is located on the second course. This simplifies the seam construction and shortens the dry pipe.

The firebox is 111⅛ in. long by 84⅜ in. wide inside, which gives a grate area of 65 sq. ft. The firebox door opening is flanged with a large radius and projects through the flanged opening in the back head, the two sheets being riveted together in accordance with successful Canadian Pacific practice. The security brick arch is carried on five 3-in. tubes placed well above the mud ring at the front end. The grates are of the butt-finger type, no special dump grate being provided. The brackets, which support the grate bars, also carry the ash pan. Firing is done by hand. The

fire door is of the air-operated butterfly type, Franklin No. 8. The boilers are fed by two Hancock No. 10, type A inspirators.

Engine and Running Gear

The cylinders are of an unusually substantial design, double bolted together and provided with a flange at the back through which pass bolts which hold the cylinders to special lugs on the front frame extension. The 14-in. piston valve is operated by a Walschaert gear.

The frames are of the single front rail type, of vanadium cast steel, specially heat treated. At the back they are attached to a Commonwealth cast steel cradle casting. These are the first locomotives on which a one-piece cradle casting has been used in conjunction with a Vaughan trailing truck. This type of trailing truck has been the standard on the Canadian Pacific for many years, and when used with a Commonwealth cast steel cradle affords an unusually large space for the ash pan and furnishes excellent accessibility. The large ash pan is fitted with doors which swing closed by gravity.

The three drivers on a side and the trailing wheel are equalized together, a long equalizer being used to connect the spring hanger back of the third driver with the forward spring hanger of the trailing truck wheel. The spring hanger back of the trailing truck wheel is held in tension by a strong coil spring underneath the truck frame. This method of equalization is considered to be largely responsible for the excellent riding qualities of these engines.

Another factor in the riding qualities is the design of the front truck. The two cast steel side frames of channel-shaped section are bolted to a substantial center casting. The journal box pedestals are integral with the side frame, which also contains a spring seat and a pocket for the semi-elliptic spring. Equalizers resting on the journal box connect the ends of the semi-elliptic spring to spring seats at the outside corners where coil springs transmit the thrusts to the side frame. The wheels are steel tired, 31 in. diameter, and have cast steel centers. The journals are 7 in. by 13 in. The journal boxes are fitted with double-faced cast brass liners and hub liners are also applied to the wheels.

The crosshead has been improved by the application of side liners on each side which facilitate the renewal of the side wearing strips.

The reverse gear is of the screw type, commonly employed on this road, which permits of a finely graduated cut-off.

The cab is of the railroad standard enclosed vestibule type, while the location of fittings and piping has been given careful attention. Large lockers have been provided for the convenience of the engineman and fireman. The cylinders and the air compressor are lubricated by a Detroit force feed lubricator. Other specialties, not mentioned, include Pyle electric headlight, Westinghouse 8½-in. cross-compound air compressor, Barco joints in air and steam piping between engine and tender, King piston rod and valve stem packing and Franklin grease lubrication of driving box journals.

Tender

The tender has been redesigned with a one-piece bottom. The swash plates are of corrugated form instead of plain sheets with stiffening angles as ordinarily applied. Another improvement has been to remove the tank well operating valve rod from the coal space; the valve is now operated from the front of the tank well. The design of the coal space is such that the coal slides forward to the shovel plate and thus reduces the labor of the fireman. The frame is a Commonwealth cast steel design.

The trucks are of the four-wheel equalizer type. The wheels have steel tires, 36¼ in. diameter, and cast steel centers and the journals are 6 in. by 11 in. The truck bolster and the pedestals are of cast steel. An opening through the bolster permits the brake rod to pass through instead of underneath as on previous trucks. An excellent cushioning is obtained by the employment of a longitudinal, semi-elliptic spring and two coil springs on each side.

The accompanying table gives the principal dimensions and proportions of these locomotives, which are interesting for their careful design, and attractive appearance.

TABLE OF DIMENSIONS, WEIGHTS AND PROPORTIONS

Railroad	Canadian Pacific
Builder	Montreal Loco. Works
Type of locomotive	4-6-2
Service	Passenger
Cylinder, diameter and stroke	25 in. by 30 in.
Valve gear, type	Walschaert
Valves, piston type, size	14 in.
Weights in working order:	
On drivers	181,500 lb.
On front truck	60,000 lb.
On trailing truck	59,000 lb.
Total engine	300,500 lb.
Tender	188,500 lb.
Wheel bases:	
Driving	13 ft. 2 in.
Total engine	34 ft. 9 in.
Total engine and tender	67 ft. 1 in.
Driving wheels, diameter outside tires	75 in.
Boiler:	
Type	Straight top—extended wagon bottom
Steam pressure	200 lb.
Fuel, kind	Bituminous
Diameter, first ring, inside	78¼ in.
Firebox, length and width	111⅛ in. by 84⅜ in.
Arch tubes, number and diameter	5—3 in.
Combustion chamber length	26 in.
Tubes, number and diameter	205—2¼ in.
Flues, number and diameter	38—5½ in.
Length over tube sheets	18 ft. 6 in.
Grate area	65 sq. ft.
Heating surfaces:	
Firebox and comb. chamber	258 sq. ft.
Arch tubes	40 sq. ft.
Tubes	2,224 sq. ft.
Flues	1,008 sq. ft.
Total evaporative	3,530 sq. ft.
Superheating	830 sq. ft.
Comb. evaporative and superheating	4,360 sq. ft.
Tender:	
Style	Rect. water bottom
Water capacity	8,000 imp. gal.—9,600 U. S. gal.
Fuel capacity	12 tons
General data estimated:	
Rated tractive force, 85 per cent	42,600 lb.
Cylinder horsepower (Cole)	2,252 hp.
Boiler horsepower (Cole) (est.)	2,293 hp.
Weight proportions:	
Weight on drivers ÷ total weight engine, per cent	60.5
Weight on drivers ÷ tractive force	4.26
Total weight engine ÷ cylinder hp.	133.75
Boiler proportions:	
Boiler hp. ÷ cylinder hp., per cent	101.8
Comb. heat. surface ÷ cylinder hp.	1.94
Tractive force ÷ comb. heat. surface	9.78
Tractive force × dia. drivers ÷ comb heat surface	734
Cylinder hp. ÷ grate area	34.61

Keystone

The "Caerphilly Castle," the Newest Passenger Locomotive on the Great Western (England)

Meredith Urges Interest in Farm Problems

Former Secretary of Agriculture Discusses Basic Industry at Convention of Development Officers

THE FARMER was portrayed as a representative of an important industry which must be studied and promoted by the railroads, even as transportation should be studied and promoted by the farmer, by E. T. Meredith, former secretary of agriculture, when he addressed the fifteenth semi-annual meeting of the American Railway Development Association, which was held in the Hotel Sherman at Chicago on December 6 and 7. Mr. Meredith dealt with the economic rather than the political aspect of agriculture and directed his remarks particularly to establishing the fundamental character of this industry in our economic system. As one indication of this he adduced figures showing that where in 1870 when the improved land in this country amounted to 175,000,000 acres, there were 425,000 business concerns, an increase of improved land to 500.000.000 acres in 1920 was accompanied by an increase in business houses to 1,800,000. A chart of these and other figures discloses a relationship between the increases in improved land and business houses which Mr. Meredith considered highly significant. Mr. Meredith also produced a chart showing the close relationship between agriculture income and business failures.

It was Mr. Meredith's conclusion from these observations and others made during his address that agricultural conditions should not only receive the interest of business in this country but that an active effort should be made to promote a more profitable condition of agriculture, and of all the interests affected by a healthy condition of agriculture that to no industry is this condition of greater concern than to the railroads, since a greater purchasing power of the farmers results not only in the increased business for the railroads from or for the farmers, but an increase in business generally. It is essential, he pointed out, that there be a community of interest between business and agriculture and particularly between transportation and agriculture. If conditions in agriculture are not right, the railroads should lend themselves to assist in making them right. He referred to the work of the development officers as an effective means to this end, inferring only that there should be more of it. He favored the Neosho plan of community development whereby business men, including railroad representatives and farmers, are brought together, as described in the *Railway Age* of December 1. He emphasized the beneficial results to be gained from active participation by railway officers in commercial organizations, the establishment of such activities as the boys' and girls' clubs in agricultural communities, the encouragement of livestock exhibits. etc.

"The farmers," he declared, "are not radical but rather conservative, fundamentally." But his problems are problems which cannot be neglected if the problems of the railroads and other industries are to be met effectively. As indicating the significance of attention applied to the solution of agricultural problems, Mr. Meredith referred to the discovery of hog cholera serum which alone results in the saving of $45,000,000 a year to farmers which is now being expended for manufactured articles, etc. He mentioned the striking contrast between the stock developed by boys' and girls' clubs and the average handled and stated that as important as our export business in beef is considered to be, it would take only a 1½ per cent increase in the weight per animal to exceed the total quantity of this business.

While differing somewhat with Mr. Meredith as to the proper method of meeting the agricultural problem, W. F. Manss, first president of the association and a former officer in the War Industries Board, indirectly emphasized the economic effect of agriculture upon general prosperity in the country by reciting results of his studies to determine the degree to which the cost of labor enters into the cost of commodities. As a whole, 75 per cent of the wholesale price of agricultural products was found to be accrued labor, or that for every dollar paid for agricultural products 75 cents goes to labor in one form or the other. It was Mr. Manss's opinion, however, that unless this ratio was reduced the agricultural problems would be increased by reason of the competition with European goods imported at reduced prices.

Co-operative Marketing Profitable to Railroads

It was the contention of Aaron Sapiro, attorney for the Producers' Co-operative Marketing Association, that the railroads by all means should promote the establishment of co-operative marketing of agricultural products as the most effective single solution of the agricultural troubles and the means of ameliorating the problems of transportation. "True co-operative marketing," he said, "substitutes merchandising for dumping, the steps involved being the grading of agricultural products, greater care in shipping, the extending of markets, the development of increased consumption by means of advertising, etc., the controlling of the flow of the supply through the agency of warehouses, etc., and the distribution of the supply at the point of consumption. As distinguished from the present method of marketing much of the agricultural products of this country, he explained that true co-operative marketing organizations are organized with a view to confining the production of agricultural products to those experienced in production and the marketing to those experienced in marketing. This procedure, he declared, is the key to orderly distribution of cars, the effect upon the railroads being a reduction in claims for damage in shipment, an enlarged ability to meet the car orders and the ability to derive revenue from cars over a longer period as well as decreased possibility for friction between the transportation agencies and disgruntled shippers. As proof of the advantage to railroads of true co-operative marketing, he referred to the present method of handling the California produce, the first money for the development of which was furnished by the Southern Pacific and Union Pacific railroads. He further stated that an analysis showed that a national marketing organization would result immediately in a 10 per cent increase in the car supply by reason of the smaller number of cars required at the season of peak load.

The importance of the terminal market as a factor in the marketing problem was emphasized by J. S. Critchfield, president, American Fruit Growers', Inc., who referred to the experiences of this company in marketing fruit produced in various parts of the country. The trend of cost in transportation and in the handling of fruit, he said, necessitate putting out a finished product at the point of origin. The mere payment of claims by a railroad for damage resulting in shipment frequently does not compensate for the damage when the reputation of the product is injured, The possibility of claims arising from shipments of selected perishables is greatly reduced by terminal markets, however, and other advantages are gained such as the removal of uncertainty in road schedules, the service such markets renders to the roads at time of peak movement, less track required to accommodate shipment and the need for less cars by reason of the

reduction in the number of cars used by smaller shippers for warehousing purposes. Embargoes in times of car shortages do not necessarily indicate an excess of traffic at that time but rather inefficiency in the marketing system. Nor is it sufficient in itself for the railroads to deliver cars of perishables promptly, if proper warehousing facilities are not present, as illustrated by the fact that the benefit from the unexcelled dispatch with which apples were transported this year from the northwest was largely lost by reason of the inadequacy of facilities at terminal points which could absorb and preserve the apples unloaded. It was Mr. Critchfield's belief, in conclusion, that the railroads are not concerned solely with the income derived from any shipment of produce, but rather in the efficiency with which the entire product is handled and marketed.

That the railroads have taken an active interest in co-operative marketing was indicated by discussions led by D. L. Hagerman (Penn.) and D. V. McNallie (St. L. S. W.), who presented papers on the benefits accruing from co-operative marketing of potatoes, respectively, in Michigan and Texas.

Indiscriminate Land Selling Bad for Railroads

That indiscriminate land selling is inimical to the railroads was developed by H. M. Madison (S. A. & A. P.), in a paper describing the result of an investigation in Texas, involving two large ranches established on the lines of this road 25 years ago, one of which was made the object of a systematic program of land development, the other representing an example of indiscriminate land selling. The operations on ranch number one consisted in improving the land with little attention given to selling, while on the second ranch, sales were started with a large advertising campaign and little attention was given to land development. After a little more than 20 years the first ranch is practically all in crops with a cotton production practically outranking that of any similar area in the United States and with the best of seed crops. The second ranch which has about the same area as the first has less than 10 per cent of the land cleared and less than 5 per cent under cultivation. In the past three years this ranch has furnished the San Antonio & Aransas Pass with 2,278 tons of farm freight while the first ranch has furnished in the same period 33,676 tons.

Mr. Madison stated that on present average production and land prices about one-third of a farm must be cultivated to meet taxes, interest and other fixed and essential charges, although in Texas only 22 per cent of the farm land or 14 per cent of the area is in crops as a result largely of indiscriminate land selling as compared with real land development. Reference was made to the methods of James J. Hill and those pursued under the laws of California and other states as showing the accomplishments to be had where land development is carried on systematically and the benefits to be derived by the railroads in the vicinity and those located in the distance through the encouragement of proper development in this respect. The essentials of proper land development, according to Mr. Madison, are to secure purchasing farmers and place them on suitable land under such financial and social conditions that they can go forward in a spirit of confidence to the attainment of thrift and success. The three things necessary to bring this about are to prepare suitable farm land, to erect farm buildings and to arrange convenient payments. Usually the chief difficulty has been the purchasers' lack of capital. There is a need for commercial leadership in land development, declared Mr. Madison, and because of their nature and widely distributed interests the railroads are peculiarly fitted for this leadership. It was not suggested, however, that railroads do all or any of the several things considered necessary to proper land development but rather that they should become commercial leaders for development organizations and engage actively in discrediting indiscriminate land selling.

In discussing Mr. Madison's paper, E. F. Benson (N. P.) stressed the point that the cornerstone in the foundation for land settlement is home building as distinguished from speculation. He referred also to the fact that labor conditions, the prices of farm products and the greatly increased tax burdens are the three chief reasons why many people are leaving farms. Inferring that close attention must be given to the improvement of conditions in these directions to promote more helpful conditions of land development, he referred to the fact that while many people are leaving the farms all over the country, a large portion of those who stick to the land are adjusting themselves to better methods and are making their operations more successful through smaller farms, the hiring of less labor, and diversification. Mr. Benson referred to the present condition of the vast grazing areas of the west and appealed to the railroads to support measures calculated to insure the most efficient disposition of the land that remains. He deplored the failure of the government to lease for grazing purposes many of the grazing lands and contended that in the same way that other countries have done, this country could adopt a grazing lease system to the profit and satisfaction of all concerned.

Public Relations Work Not New

Taking up the subject of public relations, E. F. Flynn, assistant to vice president in charge of public relations, Great Northern, reminded the association that the public relations work by railroads is not new, but rather that railroads have had always to encounter adverse public opinion, a point which he illustrated by reference to the experiences of railroads in the early stages of their development. This fact, however, he explained, does not lessen the necessity for giving close attention to this work at present. On the contrary, it is essential for the railroads to give specialized attention to this work and particularly important for all the roads to work together in the business of selling transportation to the public. He referred to the strategic position occupied by the development officers in carrying out this kind of work by reason of the contact afforded with the agricultural and other interests upon whose good-will and constructive viewpoint the ability of transportation to serve the public largely depends. In conducting public relations work, however, Mr. Flynn emphasized the importance of a thorough knowledge on the part of the development officers of the transportation business and their ability to answer questions. He stated that on the Great Northern, where a public relations department has been recently organized, marked results have been obtained by enlisting the company's physicians and agents in the work, also the clergy in the various towns, owing to the fact that what these groups have to say or what they do usually carries more weight than do the remarks or efforts of men whose work is exclusively that of public relations.

In this connection, Alan Rogers (C. C. C. & St. L.) described the program of public relations conducted on the New York Central Lines through the agency of a "progress special," described in the *Railway Age* of September 29. Aside from the effect of the exhibits of railway progress, the success of this venture was traceable largely to the fact that transportation was discussed not by railroad men but by members of the communities, political representatives of farmers and by farmers themselves. He reported that more than 50,000 essays were written on transportation as an incident of the program carried out, that more than 5,000 people visited the coaches every day and that actually as a result of the interest created many bond issues inimical to railroad development were defeated.

More Authority for Industrial Officers

An address by Albert L. Scott of Lockwood, Greene & Co., industrial engineers, Boston, on the subject of gaining the good will of industries, brought out that many railroads

suffer in industrial development work by reason of the handicap under which their industrial officers are compelled to operate. To obtain the best results the industrial officer must have a standing, must be looked upon as something more than a mere representative of the railroad. He must have a standing with shippers which is to be had only when a railroad gives him authority and support. Mr. Scott pointed out that a great many industries do not know the industrial officers of the railroad except in a perfunctory manner as a result of which both the industry and the road suffer. It is not alone sufficient, however, that industrial officers should be granted more authority but that in turn they should become more intimately acquainted both with the problems of the industry and especially with the shippers in order to acquire the standing which it is to the interest of the roads to establish. Very often the industrial officer does not know the industry which seeks his advice whereas it is much to his advantage in approaching shippers to be in a position to advise them not only concerning the transportation service the railroads can render, but with regard to taxation, labor conditions, religion and like considerations which may have a bearing upon the prosperity of the industry established on the railroad's line. By conducting himself with this in mind, Mr. Scott expressed the belief that the industrial officer can exercise a large influence in building up good-will on behalf of transportation.

The bulk of the time given to industrial topics was devoted to ascertaining the practices of the railroads in handling the various items involved in the building and management of industrial facilities. An inquiry as to the line of activity followed in initiating the location of industrial plants by railroads brought out that the Baltimore & Ohio employs a geologist to determine the natural resources of the territory and incorporates his surveys in pamphlet form for the information of prospective industries. Some railroads have endeavored to stimulate industrial development by advertising in periodicals, but it was reported that the results from this work have not been successful, the medium through which the best results have been obtained being rather the commercial organizations in municipalities. An inquiry as to the rental charged for industrial sites on railroad properties developed that practically all rentals are made on the railroad's own valuation of the particular property, usually at the rate of 6 per cent.

Practically all roads, according to the reports, charge rentals for all land occupied temporarily by contractors, the rental continuing as long as the land is occupied. No road reported the practice of requiring a deposit from such contractors to serve as a guarantee that they will clean up the land after they are through with the job. Various rentals are charged for the privilege of laying pipe lines from oil stations to the track on the right-of-way, the purpose of such rentals being rather to facilitate the keeping of records concerning the use of the premises for this purpose and to induce industries to notify railroads of the discontinued use of the premises rather than to secure revenue.

In answer to an inquiry as to the amount included in estimates required for new track to cover engineering expense it developed that some roads such as the Grand Trunk and St. Louis-San Francisco make no charge for engineering but that the bulk of the roads make a charge varying from about 5 per cent for engineering in the figure included for material and labor. It appeared, however, that all roads make a special charge at the completion of the work for the cost of the engineering. Work train service is charged for by the day on the Missouri Pacific and by the hour on the Baltimore & Ohio and other roads, where work train service is required in connection with the installation of industrial sidings. It developed that work train service is so unusual on some roads in work of this kind that no special rate has been provided. Four out of 10 of the roads present do not include work train service in their estimate for installing industrial sidings. Where cinder ballast is used the expense for handling this material is added to the estimate for the industrial siding but is lumped in the general amount rather than recorded specially. Practically all roads reported that industrial tracks are built beyond the point of clearance at the expense of the industry.

In addition to the subjects outlined above, there were included in the proceedings of the association a paper on proper publicity methods to increase land development by Dan C. Wallace, editor, The Farmer, St. Paul, and a paper on the importance of live stock and dairy development to successful immigration as presented by D. M. Johnson (Canadian National) with discussions of this subject by H. S. Funston (Soo) and H. M. Niles (Missouri Pacific). A paper was also presented on the subject of poultry development in the southwest by M. B. Oates (Ft. Worth & Denver City) together with a discussion on marketing by Luther D. Fuller (Erie). Reports were also made by H. L. Ford (Colorado Southern) and H. J. Schweitert (Illinois Central) as to the work done by the railroads this year in the development of better stock for market purposes.

The officers of the association are as follows: President, John S. Fox, assistant general immigration agent, Northern Pacific, St. Paul, Minn.; first vice-president, J. F. Jackson, general agricultural agent, Central of Georgia, Savannah, Ga.; second vice-president, A. Leckie, industrial agent, Kansas City Southern, Kansas City, Mo., and secretary-treasurer, W. H. Hill, agricultural agent, New York Central, Chicago. About 200 members and visitors were present during the meetings.

Secretary Mellon Says Roads Should Not Be Handicapped

WASHINGTON, D. C.

THE ATTITUDE and circumstances of the railroads will be an important factor in determining the prosperity of the country during the coming year, and it would be unfortunate to have the Transportation Act altered at this time in any way likely to handicap the companies in raising more capital, says A. W. Mellon, Secretary of the Treasury, in his annual report. After pointing out that the traffic handled by the railroads this year has surpassed all records and that they have made larger capital outlays for new equipment than in many years, besides liberal expenditures for bringing old equipment to a high standard of efficiency, Mr. Mellon adds:

"They are large consumers ordinarily of iron, steel, and all construction materials, and they have not made up in one year the accumulated deficit in construction since the beginning of the war. The country has benefited in marked degree during the past year, not only from the direct effects of their liberal expenditures upon the employment situation but from the result in improved transportation service.

"There is one unsatisfactory feature about the large capital outlays upon the railroads in the past year, and that is that they have been almost wholly provided by borrowing and are represented by bond issues. It is evident that the railroads can not be permanently financed in this manner. Unless a proportion of the new capital is provided in the form of proprietary investment, the credit of the companies will suffer, interest rates upon their offerings will have to be advanced, and in the end further borrowing will become impracticable. The public is interested in maintaining the credit and the service of the roads, and especially interested now that their expenditures shall be in 1924, as in 1923, a strong supporting element in the general employment and business situa-

tion. The companies have been operating this year under conditions more than ordinarily favorable to earnings, owing to the heavy volume of traffic, but they have not prospered alike in all sections of the country.

"The Interstate Commerce Commission is in possession of all the facts as to their earnings and is empowered to make any adjustment of rates that conditions seem to warrant. The Transportation Act of 1920 undoubtedly has strengthened the credit of the railroads. It would be unfortunate to have the act altered at this time in any way likely to handicap the companies in raising more capital.

"The farmer is now complaining, and rightly, of the high freight rates and the high cost to him of that which he has to buy. The railroads of this country require a billion dollars a year of new capital in order that they may properly maintain their service and at the same time in keeping with the country's growth conduct the business of transportation upon such an economical basis as will permit the reduction of rates. The cost of capital is, therefore, one of the largest items of expense in the conduct of railroads. Nothing has so contributed to this additional cost of capital as the high surtaxes which have driven the large investors from railroad to tax-exempt securities. In like manner, the demands of capital for a higher return by reason of the high surtax rates has raised the cost of all manufactured products."

Wallace Urges Rate Reduction

WASHINGTON, D. C.

TO MEET THE EMERGENCY in the wheat section a reduction of at least 25 per cent in freight rates on wheat and wheat products originating in the distressed wheat areas would be helpful, says Secretary Wallace of the Department of Agriculture in a special report to the President on the wheat situation. Such rates, he said, should remain effective until wheat prices shall have more nearly reached a parity with the prices of other commodities or until a readjustment has been made in all freight rates.

In order to determine a proper basis for this adjustment, he says, the Interstate Commerce Commission or a special commission composed of representatives of railroads and shippers, and created for that purpose, should review without delay the entire structure of interstate railroad rates and should make or submit recommendations for adjustments which will return adequate revenues to the railroads and as well afford some relief in the way of reducing the cost of transporting agricultural products.

"The increase in the cost of transportation from the farm to consuming centers is a very important factor in the present situation," the report says. "The rates from country shipping points to primary markets are about 45 per cent above the pre-war rates. For example, the rate from Larimore, N. D., to Minneapolis in 1913 was 7.2 cents per bushel; the present rate is 10.5. From McPherson, Kan., to Kansas City the rate was 7.6 cents per bushel in 1913 as compared with the present rate of 11.4. Export rates in general have been increased more than 45 per cent. In 1913 the export rate from Chicago to New York amounted to 7.8 cents per bushel; today it is 13.5 cents, or 73 per cent above the pre-war rate. The export rate from McPherson, Kan., to Galveston was 15.6 cents in 1913; the present rate is 27 cents, or 73 per cent above the 1913 rate.

"War conditions caused freight rates to be raised, reaching the high point in 1920. Unfortunately the highest rates of the period were put into effect after prices had begun to fall. It was no more burdensome to pay 19.8 cents for transporting a bushel of wheat from Chicago to New York while the price was $2.20 and above than it was to pay 7.8 cents before the war when the price was about $1 at Chicago. Since 1920 prices of wheat have fallen nearly to the pre-war level, whereas freight rates remain 45 per cent and more above pre-war rates.

"Relatively high freight rates from producing regions of the United States to the seaboard are a serious handicap in competition with other countries in the markets of the world. The freight rates from points in Montana to Duluth are from 7 to 10 cents a bushel higher than the rates in Canada for the same distances to Port Arthur and Fort William at the head of the Lakes, from which the rates to Liverpool under normal conditions are substantially the same as from Duluth.

"It is of interest in this connection that while freight rates in the United States are still 45 per cent and more above the 1913 level, Dominion rates from the western provinces to Port Arthur are practically on a pre-war basis. In line with the policy of the United States, the Canadian freight rates were increased several times between 1916 and 1920. Beginning with January 1, 1921, however, reductions were made from time to time so that by July 6, 1922, rates were only from 1 to 4 cents per hundred pounds in excess of the 1913 rates. The reduction made July 6, 1922, amounted to in many cases from 9 to 11 cents per hundred pounds or a decrease of from 26 to 28 per cent. This reduction offsets in part the effect of the tariff duty imposed by the United States upon the importation of wheat. For example, at Scobey, Mont., wheat grown both in Canada and in the United States must pay 22.5 cents per bushel freight to Duluth, while wheat from Regina, a point on a Canadian railway 90 miles farther from the head of the Lakes, pays only 12 cents to Port Arthur. Adding 3 cents for lake freight to Buffalo, the transportation charges on a bushel of wheat from Regina to Buffalo plus duty is 45 cents whereas the transportation charges alone from Scobey amount to 25.5 cents, leaving a differential against the Canadian grower at Regina of only 19.5 cents per bushel or 10.5 cents less than the tariff.

"In comparison with the central wheat-growing regions of the United States, Canada has an advantage in that the bulk of the Canadian wheat for export moves to the seaboard via the Great Lakes. This cheap water transportation for a good portion of the inland haul, together with the lower rail rates, brings many of the Canadian wheat growers nearer to Liverpool than the producers of central Kansas. For example, the combined rate from Regina to Liverpool through New York amounts to 29 cents per bushel, whereas the combined rate from McPherson, Kan., to Liverpool through New Orleans or Galveston is 35.5 cents.[1]

"Argentine wheat, which must pay higher rail rates per mile, but only for a short distance, enjoys an advantage of approximately 10 to 12 cents per bushel in the combined rail and ocean rate to Liverpool.

"A reduction of freight rates practically to the pre-war level would be necessary to place the United States in the pre-war position to compete with Canada in transportation costs to European markets. Such a reduction also would again place the Kansas farmer approximately in the same position to compete with the Argentine farmer that he held before the war. . . . . .

"It is recognized also that a reduction of freight rates to pre-war levels would not raise the price of wheat sufficiently to give the wheat grower pre-war purchasing power. A reduction, however, would contribute to an improvement in the situation and should be made without delay, to remain in effect until the prices of wheat are more nearly on a par with the prices of other products. Economically it would seem wise to reduce the burden of freight rates upon low-priced commodities such as wheat, and to make up for the loss in revenue by increasing rates upon high-priced commodities."

[1]These combined rates may vary from day to day on account of variations in lake and ocean rates.

The Commission Presents Its Annual Report

Reports of Bureaus of Statistics, Law, Inquiry, Service, Safety and Inspection

A SUMMARY of railroad developments during the year ended October 31 was the main feature of the Interstate Commerce Commission's annual report to Congress. The summary, together with abstracts of the reports of the bureaus of valuation, finance and accounts, was published in the *Railway Age* of December 8, page 1061. Abstracts of the reports of the remaining bureaus follow:

Bureau of Statistics

Much attention has been given during the year to methods of analyzing current statistics so as to reveal tendencies in the economy and efficiency of management. A compilation of comparative operating averages from this point of view has been published, and it is expected that similar statements will be issued annually in the future.

Analysis has also been made of the extent to which the cost of railroad operation has been affected by changes in the prices of materials and the wages of labor. The total cost of materials and the total pay roll in any year are obviously affected not merely by the changes in prices and rates of wages but also by the amount of business done in the particular year. To show separately the influences of prices and of wage-rate changes upon operating costs, it is necessary to determine the aggregate cost each year of the same bill of materials and of the same quantities of labor.

The study of the systematic construction of rate scales based on cost and value of service has been continued. Even though it is impracticable to substitute in any comprehensive manner ideal distance scales in place of the present commercial rate structure, it would often be convenient to have a theoretical rate standard to apply where practical considerations permit such action. No results have as yet been published, pending further tests.

We are also attempting to formulate statistical tests of the degree of maintenance of way, structures, and equipment. The net railway operating income as reported will not reflect the true earning power of a railroad if too much or too little has been included for maintenance. Great changes in the value of the dollar render it difficult to find simple comparative tests of what is adequate or excessive maintenance.

Among the special studies during the year was an analysis of the distribution of freight revenues by classes of commodities. It is apparent that a great improvement is possible in our current traffic statistics in the way of showing the movement of commodities between important centers of production and consumption and the revenue and average haul for various classes of traffic, but we have been thus far deterred from making new requirements along this line by the added clerical expense involved.

The further revision of wage statistics has been under consideration jointly with the Railroad Labor Board.

This bureau prepares the monthly report of the condition of railroad equipment in compliance with Senate Resolution 438, approved February 26, 1923. In view of the fact that this statement is a rearrangement of data appearing regularly in other form, and of the further fact that the crisis which called the statement into existence has passed, its continuance would seem to be unnecessary.

Formal Docket

The formal complaints filed numbered 1,160, of which 936 were original complaints and 224 subnumbers, a decrease of 104 as compared with the previous period. We decided 970 and 218 have been dismissed by stipulation or on complainants' request, making a total of 1,188 disposed of, as compared with 1,013 during the previous period. We conducted 1,883 hearings and took approximately 248,383 pages of testimony, as compared with 1,862 hearings and 227,037 pages of testimony during the preceding period.

The following statement shows certain facts with respect to the condition of our docket as of October 31 of the years indicated:

	1920	1921	1922	1923
Formal complaints filed	1,040	[1]1,487	1,264	1,160
Cases at issue but not set for hearing	146	201	363	236
Cases set for hearing but not heard	92	205	109	63
Cases heard but not fully submitted	505	714	607	588
Cases submitted	385	445	671	604
Cases disposed of	620	1,021	1,013	1,188

[1] This includes approximately 900 complaints filed against the Director General of Railroads, as agent, in the month of February, 1921.

Classification of Freight

More than twice as many changes were made in classification ratings as in the period covered by our last report. The ratings increased were 46 in official, 43 in southern, and 23 in western classifications. The reductions were 123 in official, 378 in southern, and 174 in western. Of the reductions, 10 were made in compliance with our orders issued after hearing. Nearly all of the changes made, particularly those in less-than-carload ratings, have been in the direction of uniformity. More than 60 per cent of the reductions resulted from the establishment of carload ratings on articles to which any-quantity ratings previously applied. This was particularly true of the southern classification, in which the ratings on 257 commodities were so changed. The southern classification of the past was primarily an any-quantity classification, but now, with the important exceptions of dry goods, meats, grain and grain products, there are few commodities moving in carloads at any-quantity ratings under that classification. While many new carload ratings have thus been established, there has also been a strong tendency on the part of the carriers, in connection with existing carload ratings, to increase the minimum weight constituting a carload. This is evidenced by the fact that 46 carload minima were increased and only 4 were reduced. Shippers have generally acquiesced willingly in these increases, as many carload minima in the classification were fixed years ago when cars were of less capacity and commercial units of purchase and sale were smaller than they now are.

Bureau of Law

On October 31, 1922, there were 22 cases involving our orders or requirements pending in the courts. During the year 10 cases have been instituted and 7 have been concluded, so that there are now pending in the different courts 25 cases. Of these, 13 are in the Supreme Court of the United States, 11 are in the district courts, and 1 is in the court of appeals of the District of Columbia. Of the 7 cases finally disposed of during the year, 1 was dismissed on motion of petitioners, 1 was dismissed by the court for want of prosecution, 1 was discontinued upon motion of the parties, 2 were dropped from the docket because complainants did not take appeals to the Supreme Court from the final decrees of the lower courts, and 2 were decided by the Supreme Court.

Bureau of Inquiry

For violations of the interstate commerce act and related acts 35 indictments were returned, and 15 informations and 1 petition for injunction were filed. Forty-six cases were concluded and one temporary injunction was granted. Three indictments were dismissed upon motion of the government, and a demurrer to one indictment was sustained. For disobedience of our orders seven penalty suits were instituted, three of which were concluded.

The indictments returned and informations filed charged the falsifying of records of common carriers, unlawful use of passes, granting of concessions and discriminations by carriers, accepting and receiving of concessions and discriminations by shippers, false billing of interstate shipments, and frauds in connection with the issuance and use of bills of lading.

We referred to the Department of Justice information in four instances of possible fraud which apparently inflated the operating expenses during the six months guaranty period, March-August, 1920, of four rail carriers, and correspondingly increased the claims for guaranty presented by those carriers to us.

Bureau of Service

No general service orders were issued during the first 10 months of 1923.

We have been following a definite policy under which we have sought to bring about the greatest possible measure of co-operation between shippers and carriers. To this end our service agents handle directly with shippers and carriers all complaints of a local character which properly can so be handled, offering such suggestions as are proper, and assisting the parties to adjust their differences, so that reasonably safe and adequate car service may be furnished more promptly; but without relieving the carriers of responsibility or depriving them of initiative.

We are also endeavoring to anticipate the requirements for cars of various classes in different parts of the country, and are working with the Car Service Division, as well as directly with the interested carriers, so that such requirements may be met to the greatest extent practicable.

A new development now well under way is the organization

by the Car Service Division of regional advisory boards, with various committees, for the purpose, among others, of anticipating car requirements and overcoming car-service and operating difficulties which can be worked out locally. Both carriers and shippers are thus in position to understand more clearly each other's problems, and through this meeting on common ground can harmonize their differences. As a result better transportation service seems assured.

Three noteworthy facts have characterized the transportation history of the current year: (1) The unprecedented volume of traffic handled; (2) the concurrent transformation of a car-shortage condition into one of car surplusage; and (3) an exceptionally equitable distribution of available equipment over territory in which the large traffic movements originate.

During the first nine months of 1923 the carriers handled more freight traffic than during any previous corresponding period, the net ton-miles of revenue and nonrevenue freight being reported as 343,796,799,000. This represents an increase of 2.9 per cent over the corresponding period in 1920, which marked the previous record, 4.8 per cent over the first nine months of 1918, when freight traffic was greatly stimulated by the war, and 31.1 per cent over the first nine months of last year, when freight traffic was reduced somewhat by the strikes of coal miners and railway shopmen. Not only was this unprecedented tonnage handled well, but the carriers reported a surplusage as of the week ended July 14 of 84,210 railroad-owned freight cars in good repair and 11,035 cars of private ownership. From June 22 to August 14 surplus cars increased from 58,671 to 78,404, and shortages decreased from 11,896 to 8,315. On five occasions between these dates more cars of revenue freight were loaded during a week than were ever before loaded in a similar period. When it is recalled that at the end of the week of October 16, 1920, which marked the previous record loading, there was a shortage of 69,517 cars, and that on October 31, 1922, the shortage was reported at 179,239, the increase in transportation efficiency is apparent.

Some of the outstanding factors which have made possible this hitherto unequaled transportation performance are (1) the condition of power and cars, (2) new locomotives and cars placed in service, and (3) increases in the mileage per car per day and loading of equipment.

The shortage of refrigerator cars which curtailed shipments in October, November, and December, 1922, was largely overcome during January of this year and surplusages of such cars were continuously reported until October 14, when for the first time since January there was a net shortage.

The movement of cantaloupes from the Imperial Valley of California was completed during July and, with the exception of 7 days in the middle of May, the carriers furnished currently a full car supply. The Georgia peach movement also was well cared for, and without complaint to us.

Anticipating the heavy demands of the fall our service agents devoted considerable time and attention to the matter of delays to refrigerator cars under load at destination, working to secure the co-operation of consignees and carriers in effecting the early release of such cars and their prompt return to loading territory. With the coming of September and October the detention of these cars, in the larger cities of the East and Middle West, rapidly grew worse on account of glutted markets. Our agents worked vigorously in an effort to overcome this situation. In addition, information with respect to specific cases was brought to the attention of the larger shippers' and receivers' organizations so that they might handle such cases with their delinquent members. But the situation has grown worse, many receivers offering various reasons for their delay in releasing these cars. A rapid and heavy increase in the tonnage of grapes from California also has accentuated the situation.

This matter is receiving careful attention. If such detention can be obviated to a reasonable extent, it seems probable that with a continuation of the greatly improved movement of equipment, and of the present rate of securing new cars, all shippers of perishable freight should be able to secure reasonably adequate service during the coming year. So far this year, notwithstanding the delays, no serious shortage of refrigerator cars has been reported from any loading territory.

In April the Car Service Division directed that box cars of western ownership were to be delivered empty by eastern roads to western connections. Western lines were not permitted to send eastern lines' box cars home except as loading was available. The object was to accumulate a supply of box cars in the West in anticipation of the movement of this year's grain. This movement begins with the winter wheat of the Panhandle of Texas and progresses northward through Oklahoma, Missouri, Kansas, Iowa, Illinois, and Nebraska, being closely followed by the spring wheat crop of the states still farther north. This program was carried out successfully and so far this season there has been no shortage of grain cars in the great grain originating sections of the country. These directions were canceled on November 1.

The accumulation of cars of revenue freight on the rails of reporting carriers as of September 22, 1922, was 80,320 cars. The total on November 2 this year was only 17,728 cars, which is practically normal. Accumulations result from numerous causes, including inability of connections or consignees to accept, disability of reporting road, embargoes and holding for reconsignment, billing, floating from piers, or for export or coastwise movement.

The large number of embargoes in effect during the latter part of the year 1922 steadily decreased during January, February, March, and April, practically disappearing during the latter part of this period. The New York, New Haven & Hartford's general embargo, which became effective in November, 1922, and which was the subject of much protest, was canceled in May. With the development of the heavy movement of wine grapes from California this year some carriers issued embargoes with respect to this traffic, differing in character, but all designed to give to the issuing carriers the longest possible haul. This resulted in discrimination. The matter was promptly taken up with the issuing carriers, and embargoes were thereupon canceled.

Bureau of Safety

A more detailed report of the work of the bureau of safety is published as a separate document.

During the year ended June 30, 1923, 378 cases of violation of safety-appliance laws, involving 1,366 counts, were transmitted to the United States attorneys for prosecution; cases involving 449 counts were confessed and 114 counts were dismissed; 55 counts were tried, resulting in judgment for the government on 30 counts and adversely to the government on 25. Four cases involving 22 counts were appealed, 2 by the carrier and 2 by the government. Two cases containing 3 counts pending on appeal last year were decided in favor of the government.

In earlier reports reference has been made to the practice of certain carriers in controlling trains on descending grades by means of hand brakes. During the past year many of the carriers on whose lines this condition existed have revised their practices for the purpose of conforming to the requirements of law.

From October, 1922, to June, 1923, 15 temporary safety-appliance inspectors were employed in addition to our permanent force on account of abnormal condition of railway equipment incident to the shopmen's strike. During the year approximately 1,160,000 cars and locomotives were inspected, and the number found with defective safety appliances per 1,000 inspected was 100.31, an increase of nearly 100 per cent as compared with the preceding year. Current inspections disclose that the abnormal number of cars and locomotives having defective safety appliances is gradually being reduced.

During the fiscal year 1923 we investigated 119 train accidents, consisting of 82 collisions and 37 derailments. The collisions investigated resulted in the death of 202 persons and the injury of 1,199 persons; the derailments investigated resulted in the death of 83 persons and the injury of 566 persons, a total of 285 persons killed and 1,765 injured.

The total length of railroad in the United States operated by the block system January 1, 1923, was 103,143.8 miles, of which 40,065.6 miles were equipped with automatic block signals and 63,078.2 with nonautomatic block signals. Comparing these figures with those for the preceding year, there was an increase of 1,004.1 miles equipped with automatic block signal and a decrease of 328 miles in nonautomatic block-signal mileage, the net increase in block-signal mileage being 676.1 miles.

During the fiscal year ended June 30, 1923, 32 cases of violation of the hours-of-service acts, comprising 190 counts, were transmitted to United States attorneys for prosecution; cases comprising 173 counts were confessed and 203 counts were dismissed; 22 counts were tried; judgment was had in 2 counts in favor of the government and 20 counts against the government; 12 of the latter counts were appealed; the 2 counts pending on appeal July 1, 1922, were decided adversely to the government. On July 1, 1923, there were pending in the various district courts 75 cases, involving 1,013 counts.

One of the serious problems in connection with the prevention of accidents is that of halting the upward movement in the number of accidents and reducing the number of casualties at highway grade crossings. During the calendar year 1922 accidents at highway grade crossings numbered 848 for the first quarter, 941 for the second quarter, 1,183 for the third quarter, and 1,391 for the fourth quarter, a total of 4,363. The resulting casualties were 1,810 persons killed and 5,383 persons injured, a total of 7,193 casualties. Statistics are complete for only the first quarter of the year 1923, during which there were 1,164 grade-crossing accidents, resulting in the death of 421 persons and the injury of 1,383 persons. The corresponding figures for the first quarter of the year 1922 were 848 accidents, 313 persons killed, and 946 injured. The indications are, therefore, that the number of casualties in 1922 will be materially exceeded during 1923. Fatalities at grade crossings have increased from 402 in the year 1890 to 1,810 in 1922. The number of nonfatal injuries has increased in greater proportion during the period, 675 persons sustaining injuries in 1890 as against 5,383 in 1922.

In the 1,164 grade-crossing accidents which caused the death of 421 and the injury of 1,383 persons during the first quarter of 1923, 860 of the accidents were to persons in automobiles and resulted in the death of 292 persons and the injury of 1,172.

Bureau of Locomotive Inspection

The work of this bureau is shown in detail in the report of the chief inspector, published separately. Except as otherwise stated the report here made is for the fiscal year ended June 30, 1923.

The following tables, covering the fiscal years indicated, are self-explanatory:

Number of locomotives for which reports are filed, number inspected, number found defective, percentage inspected found defective, number ordered out of service, and total number of defects found

	1923	1922	1921	1920	1919
Number of locomotives for which reports are filed	70,242	70,070	70,475	69,910	69,499
Number inspected	63,657	64,354	60,812	49,471	59,772
Number found defective	41,150	30,978	30,207	25,529	34,557
Percentage inspected found defective	65	48	50	52	58
Number ordered out of service	7,075	3,089	3,914	3,774	4,433
Total number of defects found	173,840	101,734	104,848	95,066	135,300

Number of accidents, number killed, and number injured as a result of the failure of some part or appurtenance of the locomotive and tender, including the boiler

	1923	1922	1921	1920	1919
Number of accidents	1,348	622	735	843	565
Per cent increase or decrease from previous year	[1]117	15.4	12.8	[1]49.2	11.8
Number killed	72	33	64	66	57
Per cent increase or decrease from previous year	[1]118	48.4	3	[1]15.8	[1]23.9
Number injured	1,560	709	800	910	647
Per cent increase or decrease from previous year	[1]120	11.3	12.6	[1]41.6	14.4

[1]Increase.

Number of accidents, number killed, and number injured as a result of the failure of parts and appurtenances of the locomotive boiler to which only the original act applied

	1923	1922	1919	1915	1912
Number of accidents	509	273	341	424	856
Number killed	47	25	45	13	91
Number injured	594	318	413	467	1,005

Derailments due to defects in or failure of some part of the locomotive or tender, with the number of persons killed and injured as the result of such derailments

	1923	1922	1921	1920	1919
Number of derailments[1]	38	22	8	7	7
Number killed	4	5	..	7	6
Number injured	157	61	30	18	7

[1]Only derailments reported by carriers as being caused by defect in or failure of the locomotive or tender were investigated or counted.

Soon after July 1, 1922, it was found that many carriers were not making the required inspections, tests, and repairs. Special notices for repairs were issued withholding many locomotives from service and steps were taken to obtain data necessary for institution of court proceedings.

Cases Against 31 Roads

Information covering 37 cases of 377 counts against 31 carriers for violation of the locomotive inspection act was transmitted to the proper United States district attorneys for prosecution. Pleas of guilty were entered in 10 cases of 78 counts. There are 27 cases of 299 counts now pending in the various district courts.

Transcribed reports showing in detail the defects found by our inspectors which should have been repaired before the locomotives were put in service were sent to the chief operating officers of carriers each month so that they might be kept informed of the conditions disclosed by our inspections.

Use of Motor Cars Calls for Proper Supervision*

A Discussion of the Problems of Their Maintenance and How They May Best Be Solved

By J. R. Watt
General Roadmaster, Louisville & Nashville, Louisville, Ky.

GENERALLY MOTOR CARS have not been purchased with a view to systematic maintenance. Some were bought by the operators and later taken over by the railroads, others were bought because they were cheap. Both methods have made the maintenance of cars difficult and expensive. Naturally there are objections to going to extremes in the matter of standardization, but by confining purchases of cars to a few types, the work will be greatly simplified, and when it is considered that the annual expense of operating and maintaining motor cars will run about half the first cost of the car, it is evident that other features besides the first cost should have careful consideration.

When confronted with the problem of maintenance the managements have usually turned to the mechanical departments, but on the larger railroads I think there is a good reason for the organization of a motor car department under the supervision of the maintenance of way department. If handled by the mechanical department adequate pressure cannot be exerted by those directly interested in the cars to get them out of the shops, and the work is therefore delayed for the completion of work that is of greater importance to the mechanical officers.

The Louisville & Nashville did not use motor cars until about six years ago. Consequently there was more opportunity to confine purchases to standard makes of cars and to the purchase of complete cars than has been the case with some of the other roads which have been using motor cars for a longer time.

As none of our men had had any experience in the operation of cars, we saw also the need of a motor car supervisor and several maintainers located to the best advantage over the system. We also started a central shop with a foreman, mechanics and a clerk. A storeroom was provided at this shop and an effort was made to stock such repair parts as would be needed to protect the cars in service.

The Stock Must Be Watched

This matter of stock is of prime importance in the maintenance of motor cars. Usually the railroads do not provide more cars than are needed, and when a car is out of service the company is losing money. Unless other roads have provided cars more liberally than we have, it is not possible to have surplus cars to ship out promptly to replace cars out of service.

Motor car parts, like the repair parts for other machinery, are necessarily expensive, and it is desirable not to carry any larger stock than is absolutely necessary. In our own case, I found that in 1922 the repair parts issued for 680 cars of all classes amounted to $31,500, or about 1.2 cents per mile operated. In order to furnish parts promptly on request and take care of the shop requirements, the stock ran about $25,000. Naturally if this stock was provided at more than one point and left to the supervision of a department not so vitally interested, it could easily be double that amount. I believe that one of the strongest features of our own organization is the central stock of repair parts and the practice of issuing these parts on requisition or wire

*Abstract of a paper presented before the Maintenance of Way Club of Chicago on November 14.

from the maintainer, and requiring the parts released to be returned.

For the 800 cars which we are now operating, we are employing 10 maintainers. The districts are arranged and the maintainers located with a special view to convenient train service and to the distribution of the cars. The division officers are necessarily given the direct supervision of the maintainers who also report to the motor car supervisor on certain matters, and are subject to his instructions whenever desirable. They carry a limited stock of such small parts as they are likely to need but we make an effort to keep this stock at a minimum and issue parts to them by passenger train. If they can ascertain what parts they are likely to need on a certain car, they provide these parts before making the trip to a car.

Must Have Good Maintainers

It is not easy to procure men who make successful maintainers. They should be mechanics, but above all they should be capable of instructing the operators and of encouraging them to make certain running repairs on their cars. They should be capable of planning their work to the best advantage and be of a type who can be depended upon to do their best without much supervision. They must be resourceful, for they have many things to accomplish with few tools. They have to keep the car in service until it can be overhauled or until they can procure the parts to make more permanent repairs. It is, therefore, apparent that to procure mechanics who have such qualifications is not an easy matter. Where railroads have standardized largely on certain makes of equipment, the factory is a good training school for the maintainer.

The operator should be taught to keep his car clean and the bolts tight. The maintainer should also make sure that the operator is using the proper grade of oil and the right amount. So far we have been successful in limiting purchases of lubricating oils to one standard brand, of which it is necessary to carry two grades. As long as this can be done consistently, it is a great advantage.

As to the Cost

The question naturally arises as to the cost of operation under the arrangement outlined. We have probably not broken any records in this respect, for whenever cars are overhauled in the shop we have made an effort to replace every part that does not appear capable of giving reasonable service. Naturally some bushings and other parts are replaced which might give further service, but in order to insure that the car will stay out of the shop we usually replace such parts. In 1922 we operated 680 cars with a reported mileage of 2,633,000 miles at an approximate cost of 4.8 cents per mile. This cost may be divided into four practically equal parts, as follows:

1. Shop and road supervision.
2. Repair parts.
3. Supplies, such as oil and gasoline, batteries, etc.
4. Interest and depreciation.

Each of these items amounted to about 1.2 cents per mile. The shop and material costs include not only parts supplied by the road men, but parts used in rebuilding wrecked cars. An effort is made to run through enough power plants so that the cars will be maintained to an average condition. The costs include interest at eight per cent on the investment and eight per cent depreciation, on the assumption that in 12½ years the development in motor car design will make the present cars obsolete.

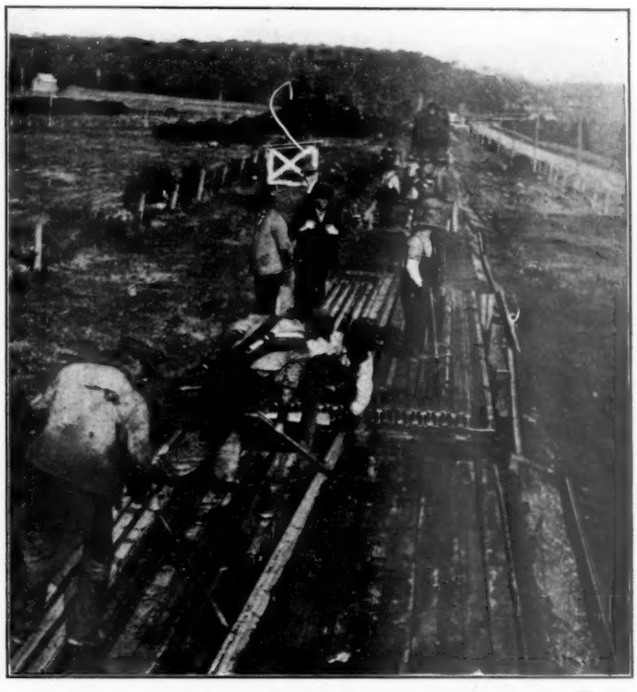
Information for determining the cost of operation is procured largely from reports submitted by each operator to division headquarters where a general report is compiled and forwarded to the general office. At the general office we have found it an advantage to keep a card index of each car on which we enter the performance reported for that car each month. Naturally, these reports are more or less inaccurate, especially as to the number of miles operated. However, in the course of a year the result is a fairly good average.

As a means of justifying these costs I wish to refer to a test made a few years ago under which the operation of 40 motor cars and 40 hand cars in section service was studied for a period of two months, in order to determine the saving that could be made with motor cars. While, of course, the mileage of cars in section service varies, the result should have been a fair average. The hand cars required an average time going to and from work of 48 min., thus resulting in a cost for the time of the foreman and seven men and the maintenance of the car of $2.27. The motor cars required 24 min., or a cost of $1.43, making a net saving per day for the motor car of 84 cents, or $189 per year, on a piece of equipment costing about $300. This figure is obtained after making all the allowances for operating costs previously mentioned.

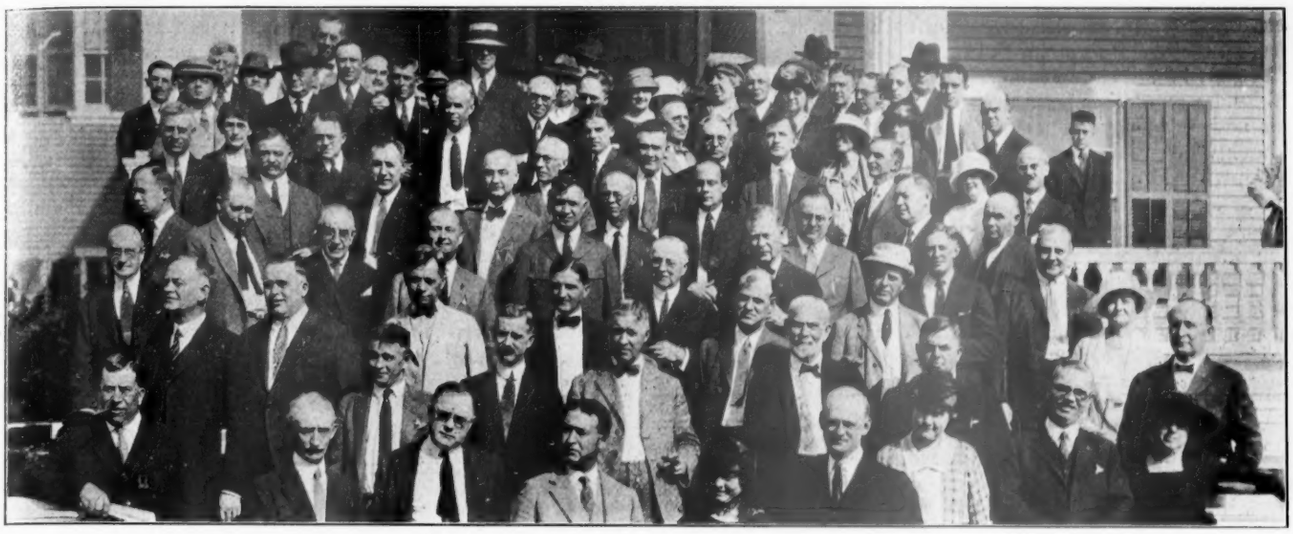
The costs which have been applied to section cars are the average costs for all types of cars. A section car on our line averages about 250 miles per month, while an inspection car averages about 500.

Another feature of motor car operation which has had considerable attention is the question of accidents. Most of the rules for the operation of cars are designed to prevent accidents. We have found that as the experience of the operator increases the number of accidents is materially decreased. Of course, this is a condition which may be reversed temporarily by some unusual accident, but it is undoubtedly true that, as the operators become more experienced, there is less fast running and greater care exercised generally.

W. N. Doak, vice-president of the Brotherhood of Railway Trainmen, has been appointed a member of the research council of the National Transportation Institute as a representative of labor.



Using Roller Bars to Unload Rail on the C. P. R.



Commissioners Hold 35th Annual Meeting

Will Urge Congress to Amend Transportation Act So As to Clarify "Twilight Zone" of Regulation

ACCOMPLISHMENTS of a busy and ably conducted annual meeting of the National Association of Railway and Utility Commissioners held at Miami, Fla., December 4 to 7, included the following:

(a) The adoption of resolutions urging upon Congress amendment of the Transportation Act so as to clarify the "twilight zone" of authority as between the Interstate Commerce Commission and the state regulatory bodies and to restore to the latter jurisdiction taken from them by the provisions of that act.

(b) A decision to appropriate $12,000 for the purpose of employing special counsel to assist the association's general solicitor in matters relating to valuation and the adoption of recommendations to the effect that the Interstate Commerce Commission report valuations by states.

(c) Approval of the regional advisory boards recently established or now being established by the American Railway Association for the purpose of securing co-operation in car service matters between the railroads and shippers.

(d) Decision to appoint a special committee of seven members to study the question of consolidations and make recommendations relating thereto.

(e) The adoption of a suggestion that the president of the association call a national conference to study the question of the protection and elimination of highway grade crossings to be attended by representatives of the carriers, state regulatory commissions, governors, highway commissioners, municipal officers and national automobile associations.

Commissioners See Florida

One of the greatest accomplishments of the association during the past year was the preparation of a "Comparative Survey of Railroad and Public Utility Laws." This was presented to the annual meeting in the form of a book of over 300 pages. It was prepared by a special committee on uniform regulatory legislation, the chairman of which was Lewis E. Gettle, chairman of the Wisconsin Railroad Commission.

As noted in the first part of this report on the activities of the commissioners' annual meeting appearing in last week's issue of the *Railway Age*, the headquarters for the annual meeting were at the Hotel Urmey, Miami, Fla. The sessions were held in the Royal Palm Hotel, one of the Flagler hotels not yet open for the winter season. The presiding officer at the sessions was the president of the association, Dwight N. Lewis of the Iowa Board of Railroad Commissioners. The meeting included morning, afternoon and evening sessions, except that on Wednesday afternoon the commissioners were taken on a motor trip about Miami and its neighbor communities, and on Thursday evening they were the guests of the Miami Chamber of Commerce at a dinner at the Hotel Urmey. Following the close of the meeting about 87 of those in attendance at the meeting were the guests of various chambers of commerce, boards of trade and the citrus fruit growers' associations on a motorcycle which, starting from Sanford, Fla., on Saturday morning, took the commissioners through the celery, truck gardening and citrous fruit regions of central Florida, and terminated at Tampa and St. Petersburg on the west coast on Monday evening. This unusual treat and instructive trip was made possible by the efforts of R. Hudson Burr, chairman of the Florida Railroad Commission.

Regional Advisory Boards Commended

Donald D. Conn, manager of the public relations section of the A. R. A. car service division addressed the commissioners on the subject of the regional advisory boards. He went into some detail concerning the progress made by the railroads during 1923 in the efforts to supply more adequate and satisfactory transportation service. He then explained the purpose of the regional advisory boards, pointing out that they were intended as sound mediums of co-operation between the public, the state commissions and the railroads. He gave detailed information concerning the regions so far provided with the advisory boards and indicated those regions in which boards were to be established in the near future. "In this movement for bettering the relationships

between the railroads and the public we have asked and have been accorded," he said, "the most helpful co-operation on the part of the state commissions. Not in all territories are the state regulatory bodies represented in the regional boards as now constituted, but it is intended that they shall be as quickly as these organizations are fully constituted and defined." His plea for co-operation was answered by statements of various commissioners, particularly those from states in the Northwest, who spoke concerning the great improvement effected in the car supply during the harvest season of the present year. The resolution commending the work of the regional advisory boards is quoted below.

Charles F. Staples, director of the Bureau of Valuation of the Interstate Commerce Commission, addressed the meeting on Thursday.

Discussion of Highway Crossing Accidents

One of the most interesting sessions of the commissioners' meeting was the round-table discussion on highway grade crossing accidents. The report of the committee on this subject was given in last week's issue. The discussion was participated in by a number of railroad men, including Frederick Metcalfe, superintendent of safety of the Northern Pacific; Isaiah Hale, safety superintendent of the Santa Fe; Charles C. Hill, general safety superintendent of the New York Central, F. W. Mitchell, director of personnel and in charge of safety work on the New Haven, and H. A. Rowe, general claim agent of the Lackawanna and chairman of the A. R. A. committee on prevention of highway grade crossing accidents. The discussion emphasized the great desirability of uniform methods of grade crossing protection, particularly because of the large number of motorists who travel away from their home states. Two important rules to follow, Mr. Rowe pointed out, would be simplicity and uniformity. The problem of eliminating grade crossing accidents, he said, is largely one of advertising, publicity and psychology. Particular attention was paid in the discussion to the large increase in the number of automobiles and automobile drivers. Various methods of grade crossing protection were considered, such as audible vs. visible signals, more severe requirements for the licensing of motor vehicle drivers, road signs, markings on roads, the stop law, etc. One point brought out was that police and traffic regulation powers should be given to crossing watchmen. Note was made that there are at present 252,000 grade crossings, 4,000 more than there were three years ago. About 480 crossings are being eliminated annually. The suggestion was made to the commissioners that they should discourage in so far as possible the creation of new road crossings at grade. Special criticism was directed at advertising signs near crossings which distract attention.

Reports of several of the committees were reproduced in last week's issue of the *Railway Age*. Abstracts of some of the other reports follow:

Report of Committee on Railroad Rates

The chairman of the committee presenting this report was Ernest I. Lewis, of the Interstate Commerce Commission who, however, was not present to offer the report in person. The report of the committee follows in part. Because of President Coolidge's reference to rate adjustment in his message to Congress the report is given here in somewhat more detail than might otherwise be necessary.

General Rate Situation

Since the general reduction of 10 per cent which became effective July 1, 1922, no further country-wide reductions in freight rates have been made, although there have been numerous reductions in individual situations. Under the present general level of rates there has been a continued increase in traffic up to October, 1923, during which month the greatest volume of tonnage in the history of American railroads was handled. The increase in traffic has been accompanied by an improvement in net earnings of carriers as a whole and yet it is estimated that the freight transportation charges collected from the public between July 1, 1922, and the end of 1923 will have been more than 700 million dollars less than they would have been if the former basis of rates had remained in effect.

Except in the agricultural industry, there has been relatively little criticism, during the past year, of the present level of rates. Among other measures which have been suggested to alleviate the agricultural situation is a reduction in freight rates, particularly the rates on grain. The Interstate Commerce Commission has recently instituted an investigation into the rates on grain, grain products and hay throughout the United States. The situation is complicated somewhat by the fact that the principal movement of grain is in the West where for the first eight months of 1923 the carriers' earnings have been but 4.22 per cent upon the tentative valuation as against 5.32 per cent in the country as a whole.

While the general level of rates is still higher than prior to Ex Parte 74 by approximately 20 per cent in the western group and on interterritorial traffic, 12.5 per cent in the southern and mountain-Pacific groups, and 26 per cent in the eastern group, there is little to indicate an excessive return to the carriers.

If the country is to prosper and the railroads are to keep abreast with its growth and transportation needs, they must be allowed an adequate return which will enable them to improve their service and to expand their facilities. In consideration of the level of rates, however, there must be careful scrutiny of operating expenses and other charges, to the end that the rates be based on honest, economical and efficient operation and proper valuations. The maintenance of adequate return does not, however, mean that rates that are unreasonable, discriminatory or prejudicial are not to be subject to adjustment. We must, however, bear in mind that in the last analysis low rates are of little benefit to the shipper if, under efficient and economical management, the carriers' earnings are insufficient to enable them to furnish proper service and equipment to handle the traffic when offered.

Territorial Rate Adjustments

During the past year considerable progress has been made toward correction of discrepancies and disparities in the general rate structure, particularly with respect to class rates. Class rates in New England and central territories have been adjusted in recent years and the relationship of the classes is now the same in both territories. Carriers in eastern trunk line territory, which lies between New England and central territories, are now giving consideration to a revision of the class rates in that territory as well as to the so-called overhead rates applying interterritorially, with a view to proposing to the interested state commission and the Interstate Commerce Commission an adjustment which will bring about uniform percentages of the lower classes to first class and establish rates based more nearly on distance. The class rates in southern territory and between that territory and eastern territory are now under investigation in the Southern Class Rate Investigation, and in proceedings brought by a number of the state commissions in that territory, and it is expected that a comprehensive readjustment which will remove the numerous discriminations and discrepancies now existing in the rate structure in that territory will result. Several proceedings are also pending involving class rates in that part of the western rate group lying south of the Nebraska-South Dakota state line. In western trunk line territory there are numerous inconsistencies and a lack of uniformity in the class rate structure which indicate the need of a general revision on a more scientific basis and it is understood that the carriers are now giving consideration to such a revision. The close connection between rates on interstate and intrastate traffic in a given district make it desirable that there should be a more consistent relationship in the rates on such traffic, particularly where there are no recognized transportation conditions justifying any difference in the measure of the rates. With the co-operation of the state and federal commissions many of the present inconsistencies in this territory both as between interstate rates, on the one hand, and intrastate rates, on the other hand, can be eliminated to the advantage of shippers and the public generally, as well as of carriers.

A comprehensive revision has been made in the rates on 30 important commodities in the Southwest as a result of the Interstate Commerce Commission's decision in *Memphis-Southwestern Investigation*, 77 I. C. C., 473. Although the transportation conditions in the territory embraced in that proceeding have been gen-

erally recognized by carriers and shippers to be substantially similar, there has heretofore been an entire lack of uniformity in the commodity rates, both state and interstate. Different rates have applied for equal distances over different lines of the same carrier and frequently the same rates have applied for varying distances over different lines of the same carrier or over lines of different carriers. Instead of varying rates for varying distances on varying commodity descriptions a uniform basis has been published to become effective November 27. Not only have the descriptions been made uniform, but in a number of instances several commodities have been grouped and a single scale applied thereto, thus eliminating many separate rates from the tariffs and making necessary only 15 scales on the 30 commodities, resulting in more simplified tariff publication. Rates on other commodities are required to be readjusted in the near future upon the same principles and in harmony with the rates which have been established on the 30 commodities.

Truck Competition as Affecting Railroad Rates

Motor trucks as to certain classes of traffic serve a useful purpose and have natural advantages over rail transportation. To the extent that, under reasonable rules and regulations applied without discrimination as between common carriers by motor truck and by railroad, the motor truck affords more economical and desirable service than the railroad, its operation should be encouraged. The fact remains, however, that if motor trucks engaged as common carriers were charged their proportional share of highway construction and maintenance, and were made subject to the restrictions regulating rail carriers, much of the service would in all probability prove to be more costly than like service by rail. It would seem that the absence of any such requirements gives the motor truck companies an unfair advantage over the rail carriers and that in the interest of the public as well as of the railroads this undue advantage should be removed. Co-ordination of transportation facilities by rail, by water and by truck under reasonable regulations is desirable in the interests of the public. While some progress has been made along these lines, there is room for material further development and serious consideration should be given by federal and state regulatory authorities and by the rail carriers to steps which will tend to bring about, as far as may be possible, adequate use of all three forms of transportation, including arrangements for continuous carriage or shipment under through billing.

Intercoastal Water Carriers

For the purpose of stabilizing transportation conditions in the public interest and to prevent ruinous and unnecessary rate wars between domestic water carriers on the one hand and rail carriers on the other, proposals are being made, and will probably be presented to Congress, that intercoastal water carriers, or the ocean carriers between the Atlantic and Pacific ports, including Gulf ports, should be regulated substantially to the same extent as are rail carriers.

Simplification of Tariffs and Rates

Material dissatisfaction has existed for some time because of complications in the use of freight tariffs and the difficulty of ascertaining the applicable charges, resulting in loss of time and money to both shippers and carriers. While much of the difficulty lies in the complicated rate structure now in force in many sections of the country, material improvement may be hoped for through greater care in the compilation and publication of freight tariffs. With the intention of working toward a more simple adjustment of rates and improvement in the form and construction of tariffs, the Interstate Commerce Commission recently brought about the appointment of a national committee of carriers' representatives to work along these lines with the Commission's Bureau of Traffic.

Report of Committee on Statistics and Accounts

Like the committee on rates and that on safety of railroad operation the committee on statistics and accounts was also headed by a member of the Interstate Commerce Commission, in this case Commissioner Joseph B. Eastman. The report of the committee said that Bureau of Accounts of the Interstate Commerce Commission had completed the work of drafting in tentative form a revision of the classification of operating expenses and that most of the preliminary work in connection with the revision of the remaining classifications for steam roads had been done. The report said that as each tentative text of a revised classification is completed, it is intended to send copies to interested persons. "Criticisms and suggestions will be welcomed," the report said, "and, if desired, an opportunity will be given for the presentation of such matters in written or oral argument before the entire commission."

A large part of the report was devoted to recent progress relating to the regulation of depreciation charges as required by the Transportation Act and a resumé was given of the discussion brought out at the hearings on this subject last month.

Another portion of the report was devoted to the statistics required of railroads by the state commissions. The following resumé of the views of the state commissions in this connection will be of interest:

"It has not been practicable for your committee to undertake the complete overhauling of the traffic and other statistics required of carriers by state commissions. The subject is one, however, which deserves serious study, both for the purpose of saving unnecessary expense to the carriers and for the purpose of obtaining statistics that will be of maximum practical use in the public regulation of rates and service. There is a strong feeling on the part of many state commissions that they should have information available that will enable them to justify the intrastate rates that are subject to their jurisdiction. Where there is a conflict between interstate and intrastate rates, they should especially be in a position to determine whether or not the cause exists in the intrastate rates. To this end, they believe that more information is necessary regarding the traffic handled within the state than the number of carloads and number of tons of each commodity transported; the total revenues, revenue car miles and revenue ton miles should also be reported for each commodity separated into the following classes of traffic:

"1. Intrastate traffic originating and terminating on lines of respondent.

"2. Intrastate traffic originating or destined to stations on connecting lines.

"3. Interstate traffic originating or destined to stations on lines of respondent within the state.

"4. Interstate traffic passing through the state.

"Such traffic statistics, in the opinion of these state commissions, would provide a comparative statement of the volume expressed in cars, tons and ton miles and the rate per car, per ton and per ton mile, and would furnish the information necessary to prepare studies as to the comparative costs of handling the different commodities as well as the comparative costs of handling intrastate and interstate traffic."

Safety of Railroad Operation

C. C. McChord of the Interstate Commerce Commission headed the committee preparing this report. The report said in part:

Safety of railroad operation involves the safe use of materials in track and equipment, jointly with proper rules, supervision, and care in all of those functions which are performed by the personnel. While there is a wealth of engineering data available to guide in the selection of materials suitable for different railroad uses, the extreme service conditions resulting from heavy wheel loads and high speeds of our modern trains have introduced problems which must be met in the manufacture of railroad materials but which are not present in other industries. This applies particularly to rails, wheels and axles. The normal life of a rail, from the time it is laid in the track until it is worn out, may vary from a few months to 20 years or longer according to the nature and volume of traffic which is operated over it; but on many lines carrying heavy traffic rail breakage is a matter of almost daily occurrence, and in rail failure statistics which are compiled annually such premature failures of rails are numbered by the thousands. These

statistics are unique in engineering practice; the failure of a steel member of a building, bridge, or other structure is a matter of such infrequent occurrence that it attracts widespread attention and calls for the most searching inquiry as to the causes leading to its failure; the strength of the materials and the loads being known, an adequate factor of safety can readily be provided. It is only comparatively recently, however, that a comprehensive study of stresses in track has been in progress, and but little is known concerning the nature, development, and magnitude of internal strains in rails. During the past decade, rail failures resulting from transverse fissures, a type of fracture starting from a point in the interior of the rail head, have become numerous, and recently a report on "The Formation of Transverse Fissures in Steel Rails and Their Prevalence on Certain Railroads" was issued by the Interstate Commerce Commission. This report is based upon the record of more than 8,000 rail failures from this cause. It sets forth in detail the reasons for their formation and outlines further investigations which are in progress. A representative of a prominent rail manufacturer recently stated that more thought and study had been given to uniformity in the production of rail steel than to any other product of the steel mills, and he knew of no improvement which could be made in current steel mill practice which would eliminate transverse fissures. However, studies of certain specific phases of the problem are being made jointly by representatives of certain railroads and certain steel mills which may be expected to lead to important advances in knowledge concerning this and other types of rail failure.

Reference has been made in previous reports of this committee to the powers and practices of many of the state commissions in respect to the inspection of tracks and bridges, and it was recommended in our 1917 report "that the inspection of railroad tracks and track equipment by all the commissions having jurisdiction with respect thereto be continued and extended." A well-maintained track with sound ties and well-driven spikes furnishes visible evidence of safety.

The use of steel cars which has long been advocated as a safety measure is now to a large extent an accomplished fact.

The value as safety measures of the safety appliance and locomotive inspection laws, both federal and state, was strikingly shown in the recent strike of railway shopmen. While inspection reports disclosed that the number of defective cars and locomotives increased rapidly and to alarming percentages of the total, the use of such defective equipment was so restricted that there was no considerable increase in the casualty records. The number of defective cars and locomotives is now being gradually reduced to normal.

This committee has recommended that the use of the block system should be made compulsory, and at the 1907 convention this association adopted a resolution to that effect. . . . . There is need for the further extension of the block system.

Under an order of the Interstate Commerce Commission a number of railroads are now installing automatic train control devices on portions of their lines, and the installation of these devices will further safeguard railroad travel.

The investigation of serious railroad accidents jointly by the Interstate Commerce Commission and the state commissions has been carried on for nearly 15 years, and the publicity which has been given the causes of such accidents, as well as the corrective measures which have frequently been taken by order of or at the suggestion of the state commissions, have been potent influences in the elimination of dangerous operating conditions and practices. . . .

Railroad Service, Accommodations and Claims

This committee was headed by Dawes E. Brisbane of the South Dakota commission. The report said in part:

The strenuous efforts of the carriers during the past year have resulted in a condition of affairs very materially different from that which existed a year ago. We refer especially to the distribution of freight cars throughout the country. For the first time in the past five years the railroads have had sufficient cars available with which to move seasonable commodities, such as grain, cotton, live stock, coal, etc. There has apparently been a most successful establishment of a systematic distribution of empty cars. We should not lose sight of the fact that, in addition to this, the volume of revenue freight has been greater during the past few months than ever before in the history of railroading, and that the new equipment put into use this year has been entirely inadequate to make up the difference in the amount of freight handled expeditiously as compared to a year ago. Therefore, credit must be given to the companies for having avoided the car shortage bedlam of former years.

Regional Advisory Boards

The Regional Advisory Boards formed last winter have functioned with great credit to themselves and benefit to shippers. These boards were conceived out of the distress of the shipping public and born through the labor of all those mutually concerned in car distribution, and have operated tirelessly.

There must be no slackening in the continued efforts of the carriers and the representatives of the public. To stand still means to lose that which has already been gained. Distribution of various kinds of cars at the times determined by the needs of shippers, can only be effected through the active supervision of the various commissions, state and interstate. With the continued increase in tonnage any surcease in our contemplated efforts will result in conditions more chaotic than those through which the country has groaned during the last few years. It is flatly up to the Interstate Commerce Commission and each individual state board to protect those portions of the country where heavy seasonable crops are to be moved, where they have suffered great inconvenience and in countless instances serious financial loss through car shortage and inability to secure a movement of their products as desired.

Branch Line Service

We recognize as maxims the statements that a railroad should be required to furnish service for which it receives reasonable compensation; that it should only be required to furnish such service for which, as a whole, it is so compensated; that the patron should be willing to remunerate the carrier for that service which he demands. We cannot concede that the service should bear a pro rata of revenue, nor that each portion of the carrier's system afford its pro rata of the reasonable return, as a whole. Too frequently we are confronted by representatives of the carriers seeking to credit a branch line with only that portion of the revenue which is actually earned within its length. Certainly the branch line should receive credit for an equitable portion of the main line earnings, especially for that portion of the revenue originating or destined to points on the branch.

The carriers too often devote their efforts to the maintaining of service on main lines to the injury of the branches through lack of consideration. And it has been noticed that on these small lines, where business has not maintained its promise of lucrative revenues, the companies have endeavored to modify or discontinue considerable portions of their service and accommodation facilities. Service once furnished for any considerable length of time should only be discontinued or curtailed after greatest care has been given to the examination of all surrounding facts. To discontinue or curtail the railroad facilities or service of a community creates a condition fraught with dangerous possibilities.

Legal Aspects

While this committee is not presumed to discuss matters of legislation and litigation there can be no doubt that these topics of service and accommodation have recently become very material subjects for discussion with reference to the Transportation Act. Especially is this true since three of our state supreme courts have handed down decisions construing certain portions of this act. Probably none of us entertained any doubt that Congress intended to reserve to the state commissions the power to make orders reasonably necessary to enable the rendition of proper intrastate service. We all had certain faith in paragraph 17 of section I of the Interstate Commerce Act as amended by the Transportation Act. The Supreme Courts of New York and California apparently have seen fit to disregard this reservation and have viewed this paragraph from an entirely different angle. The Supreme Court of South Carolina in its more recent decision is even more sweeping. Of course, we fully understand that in neither of these three cases has the law been definitely disposed of. There is also leaven in the decision of the Oklahoma Supreme Court which recognizes this paragraph of the act.

We understand that the South Carolina case is up for reargument and it is possible that the decision will be considerably tempered before it is again handed down. If these three decisions are affirmed above and Congress fails to correct this situation, it will practically amount to prohibiting the authorities of a state from requiring any interstate railroad to make a capital expenditure. Immediate and drastic action must be taken if the various states are to retain to themselves any of their original powers of supervision and regulation within their own borders. Until these questions are settled either by legislation or litigation, very little good can come of discussing the needs for station facilities. The traveling and shipping public must be protected and the necessity for its accommodation cannot well be policed from Wash-

ington. There may be great need for electric lights in the station house at Junesville, Neb., or for an unloading platform at Smithville, Tex. How utterly absurd to require the users of those minor conveniences to appeal to the federal government for relief.

It is possible that this theory, as adopted by the highest courts of New York, California, and South Carolina, might be construed to prevent any state regulatory bodies from requiring the carrier to establish stockyards, depot platforms, toilet facilities, freight sheds and whatnot. Under a strict consideration of this position the state would be barred from ordering a railroad company to establish a new station no matter how urgent the need. It occurs to us that our committee on state and federal legislation has a large and all-important job before it.

Among the various points which might be discussed in matters of service and accommodation there is one which often is considered of minor importance. We refer to toilet facilities at small stations and on branch line trains. To those of you who travel solely upon limited trains it is easily conceived that you fail to appreciate the seriousness of these conditions. It is nevertheless unfortunately true that the toilet facilities in the average small station are not only unsanitary but frequently filthy and revolting. This condition also exists on many of the branch line trains throughout the country. In a nation where cleanliness and sanitation are placed even above godliness, it is a pitiful commentary on our railroads so widely flaunted as the most progressive transportation systems of the world; incidentally no great amount of credit is due the regulatory bodies of the country for permitting such a condition to continue to exist. Very frequently these disgusting conditions which exist on some of our branch line trains are attributable to the lack of lighting facilities in the toilets and in the coaches themselves.

Progress in Claim Prevention

Strenuous efforts on the part of the railroad companies to reduce the exorbitant amount paid out in the settlement of claims for loss and damage has resulted in a marked decrease in that class of expenditures. It should be clearly and definitely understood that the campaign to reduce claims must not result in an attempt to strangle honest and legitimate claims for loss or damage or delay. Such losses or damages should receive the aid of the railroad employees in order that the claim may be promptly presented, checked, audited, and paid.

While the percentages show an improvement in the condition of the past five years, it is nevertheless a fact that during the first quarter of 1923, the number of claims presented was 29 per cent greater than the number presented during the same period of 1922, though less than those during the first quarter in 1921. This increase over 1922 may be attributed in part to an increase of 34 per cent in the tonnage handled. The commissions and carriers must redouble their efforts. Concerted action through proper inspection, education, and discipline must be carried on to minimize the damage to commodities in transit and the resulting burden on transportation costs.

Discussion

Much discussion resulted from reference in that part of the report dealing with savings in freight claims reading, "The psychological effect of working for the government is gradually wearing off among the employees." Several votes were required before it was finally decided to refer the report back to the committee. The offending sentence was deleted.

Committee on Valuation

Fred P. Woodruff of the Iowa Board of Railroad Commissioners was chairman of the committee which prepared the valuation report. The report was in three parts, the first being a general resumé of the activities of the valuation committee during the year. Special reference was made to the part taken by the committee in the valuation hearings on the Great Northern and Rock Island. The report contained a recommendation for the appropriation of $12,000 for the employment of special valuation counsel, which recommendation was adopted by the association. The importance of the state commissions being adequately represented in the valuation hearings was brought out in a reference to the activities of "a certain so-called progressive group", which reference read as follows:

"Since the last convention of this association, a certain so-called progressive group in Congress issued a call for a conference to be held in Chicago on May 25-26, 1923. The purpose of this conference was to organize a movement to insure the proper representation of the public interest in the railroad valuation proceeding before the Interstate Commerce Commission and in the courts. This was hailed all over the country as a very important movement. Regardless of the personal ideas of many, as to the motive which prompted the calling of this conference, you will all, as intelligent men, necessarily if not from choice familiar to some extent with politics of the states and nation, concede that the so-called progressive group in Congress includes some of the most astute politicians in the country, and this group of men who admittedly are close observers of the public sentiment, choose, if you please, to make one of their principal moves for public favor the valuation issue from the standpoint of making an adequate representation on behalf of the people generally. While your committee believes firmly that this question is not a political one in any sense, yet it has reason to believe that some of the state commissions are not interested in the subject to such an extent that they are willing to approve a contribution for the purpose we ask, principally, if not solely, for the reason they fear the voters of their states will not approve at the polls such an action. We wish to point out to any such, that unless this association does make a proper appropriation for the purpose and gets interested within an exceedingly short time the state railway and utility commissions will be called upon to show why they failed. We are elected or appointed, as the case may be in part at least, to keep informed and protect the basic rights of the public; to fail in this is to invite disaster."

The second part of the report described the progress made by the Interstate Commerce Commission in its valuation work during the year. The decisions of the commission in the Atlanta, Birmingham & Atlantic, and San Pedro, Los Angeles & Salt Lake cases were commented on at length. The third part of the report comprised the report of the Special Advisory Committee to the Valuation Committee. This dealt with Valuation Order No. 3 and contained the following recommendations:

"1. That no attempt be made to keep valuations current by means of listing and valuing the units of property involved in property charges.

"2. That these valuations be kept current by means of cost statements properly supervised.

"3. That the language of the valuation act be changed, if necessary, to permit the I. C. C. to perform the work as suggested.

"4. That representations be made of the necessity of providing funds for performing this work, in order that the usefulness of the work thus far accomplished may not be impaired or destroyed."

Other Reports

It has already been noted that one of the most important reports presented at the meeting was that of the Committee on Motor Vehicle Transportation. The printed report prepared in advance of the meeting was a booklet of no less than 21 pages. Besides the report itself it contained letters discussing the report written to the chairman, E. V. Kuykendall, director of the Department of Public Works of the state of Washington, by the other committee members. More than five pages were devoted to a suggested act covering the supervision and regulation "of the transportation of persons and property for compensation over any public highway by motor-propelled vehicle." The committee's report did not refer to any extent to the effect on the railways of the motor vehicle competition. It did, however, offer this proposed model statute and discussed reasons in favor of it. Among the things considered in the report were the functions

of the various types of motor truck service and the wisdom of various types of taxation of motor vehicles. The main point emphasized was the desirability of regulation and the advisability of making the procedure of the states as uniform as possible under the circumstances.

An especially interesting report was presented by the Committee on Service of Public Utility Companies, J. J. Divine of West Virginia, chairman. The report was a discussion of the attitude shown by the Public Service Railway of New Jersey during the recent strike of its platform employees. During this strike which lasted two and one-half months the railway made no effort to operate its cars and then resumed service only on threat of receivership. The report put the problem in these words: "May the franchise obligation to render service be abandoned and resumed at the will of the company?" The report then followed with a history of the strike and in conclusion said:

"The prevention of such a situation is of far greater importance than the loss in money or the economic troubles of any company. The law should never be without a remedy under such conditions and that remedy should be one that should immediately be effective and should not be surrounded by any of the ordinary delays incident to legal procedure.

"It will be observed that this question of service deals with a much greater problem than the various service questions that arise out of the relationship of the individual and the company. This deals with service in its broad sense. It deals with the question of service to the public at large. The action of the company in New Jersey in withdrawing its service in its entirety was at once a challenge to the sovereignty of the state. Its success would have defeated all regulation. It would have nullified all laws, and the supreme power of the state over its citizens and corporations. It would have pointed out to all utility companies that relief as to rates and any other economic conditions could be brought about by any company by simply withdrawing its entire service until its terms were met by the public. We express the doubt that nowhere since regulation became a part of our political institutions has any great public utility attempted to establish such a precedent.

"It is recommended therefore that, in every state where regulation is effective, steps be taken and that the proper legal machinery be provided to prevent a situation of this kind ever again becoming effective and that it be declared to be the policy of regulation, that continued and uninterrupted service must be rendered to the public at large as long as the franchises are retained; that the franchise obligation to serve shall always be construed to mean continuous and uninterrupted service."

No Report on State and Federal Regulation

The Committee on State and Federal Regulation did not submit any report. Committee Chairman Charles Webster of the Iowa Commission said, however, that amendment of the Transportation Act was needed to clarify the position of the state commissions along the lines recommended at the 1922 meeting of the Utility Commissioners' Association. "Congress," he said, "will be more receptive this year. The railroads are ill-advised in opposing amendment of the law, particularly with reference to the situation of the state commissions." He asked the question, "Is the hastily thrown together Transportation Act more sacred than the Constitution, which in spite of the respect paid to it has been amended at various times?" "The railroads," he said, "are inconsistent. They ask the people to keep their hands off the Transportation Act while at the same time they are strongly fighting the recapture clause." He particularly criticised the Railway Business Association for its propaganda opposing Transportation Act amendment.

The report of the Committee on Car Shortage was presented by Frank Milhollan of South Dakota. It reviewed the car shortage and strike situation of last year, the improvement effected this year, referred to the work of the Car Service Division, gave credit to the latter's Regional Advisory Board, and expressed optimistic views of the car supply situation in the future, as a result of this year's progress.

Resolutions

Decision and action of the 1924 meeting of the National Association of Railway and Utility Commissioners was embodied in a number of resolutions adopted at various times during the sessions. Of the resolutions as given below, the first six were prepared by the committee on state and federal legislation, Charles Webster of Iowa, chairman. This committee did not present a regular report. The preparation of the resolutions followed a request that the committee put in writing definite recommendations on which the association could take action.

Additions and Betterments

Resolved, That we urge upon Congress such amendment of the Interstate Commerce Act as shall remove all question as to the continued power of state authorities to require common carriers to make additions and betterments to their plants and facilities reasonably necessary for the safe and proper service of the public.

Rates

Resolved: That we urge upon Congress immediate legislation at the present session which shall so amend the Interstate Commerce Act as clearly to define and limit the power of the Interstate Commerce Commission, so that no intrastate rate may be changed or set aside without proof by competent evidence, and upon findings of fact made, that the same injures a person or persons or a locality or localities engaged in interstate commerce to such an extent as seriously to diminish the business of such person or persons, or seriously to retard the growth and development of such locality or localities.

Resolved further: That it is the sense of this association that the group plan of making rates, prescribed by said section 15-a is uneconomic and unsound and that the attempt, under its provisions, to produce returns upon roads that are unable to earn returns themselves, has placed an unjust burden upon the business of the nation, from which it should be relieved by the immediate repeal of said section 15-a.

Car Service

Resolved: That Congress be respectfully urged to amend the Interstate Commerce Act in such way that the regulatory authorities of the states may make reasonable orders and regulations, not in conflict with federal law, or with lawful orders of the Interstate Commerce Commission, requiring cars within the respective borders of such states to be equitably distributed to shippers desiring same, without regard to whether they are desired for use in shipments that are interstate, or intrastate.

Electric Railroads

Resolved: That Congress be, and hereby is, respectfully urged to make such amendments to the existing law as shall clearly exclude from the jurisdiction of the Interstate Commerce Commission the regulation of the rates and service of electric railroads, carrying on local street railway transportation.

Fourth Section Violations

Resolved, That we reaffirm the resolution passed by this association at the Atlanta convention, October 11-14, 1921, as to amendment of the fourth section of the Interstate Commerce Act relating to long and short haul rates.

New Construction and Abandonments

Whereas, The Transportation Act of 1920 is construed by the Interstate Commerce Commission to have vested in such body sole authority to grant certificates of convenience and necessity for construction or abandonment of railroad lines wholly within a state:

Therefore, be it resolved: That Congress be respectfully urged to amend the existing law in such manner and form as to restore

to the several states all the rights, powers and authority enjoyed by each state relative to certificates of convenience and necessity prior to the enactment of the Transportation Act of 1920.

Special Valuation Counsel

Resolved: That this convention recognizes the necessity for representation by common counsel for the states at the valuation cases to be heard and determined by the Interstate Commerce Commission; and be it further

Resolved: That to accomplish this purpose the valuation committee of this association with the advice and approval of the general solicitor of this association be directed and empowered to employ an attorney to be known as special valuation counsel, who shall have his office at Washington, D. C., and who shall devote his entire professional services to valuation cases under the direction and control of the general solicitor, * * * and be it further

Resolved: That this convention does hereby appropriate the sum of at least $12,000 * * * to be used in paying the salary of special valuation counsel and necessary expense incident to his appearance in valuation cases.

Valuations by States

Whereas, The several states have co-operated with the Interstate Commerce Commission in valuation work with the confident expectation that the valuations of roads made by that commission would be reported not only as a whole, but by states, as the valuation act in terms requires; and

Whereas, the Interstate Commerce Commission is failing to report such values by states for the reason that it reports that it has no funds available for that purpose; and

Whereas, the failure to report said valuations by states will make the same available for federal purposes only; and

Whereas, the appropriation necessary to enable the reporting of said values by states is trivial in comparison with the amount which has been already expended upon said work; and

Whereas, said valuations when completed ought to be in such form as to be available for all governmental uses, both state and federal:

Therefore be it resolved: That this association respectfully urges upon Congress that sufficient appropriation be made so that the Interstate Commerce Commission may be enabled to make and report all such valuations as a whole and also by states.

Regional Advisory Boards Commended

Resolved: That we commend the action of the American Railway Association in seeking a better understanding with the shippers of this country through the organization of regional advisory boards, and bespeak for this new departure the hearty co-operation of the state commissions.

Elimination of Grade Crossings

The question of the proper elimination of grade crossings has been considered by various representatives of the carriers and commissions of this association for the past 25 years. * * * In our opinion the time has come for the consideration of this subject at a national conference, consisting of representatives of the carriers, state regulating commissions, governors, highway commissioners, municipal officers and national automobile associations.

It is therefore, resolved: That the president of this association be directed to call such a conference, stating the time and place, and to issue invitations to the proper representatives.

Special Committee on Consolidations

Resolved: That the president of this association appoint a special committee of seven members to be known as the Consolidation of Carriers Committee, and that said committee carefully study the whole question of consolidation as a whole and the proposed plan in particular, making its report and recommendation to the next annual meeting of this association.

Election of Officers

Officers were elected for the ensuing year as follows:

President, H. G. Taylor, chairman of Nebraska State Railway Commission.

First vice-president, W. D. B. Ainey, chairman of Pennsylvania Public Service Commission.

Second vice-president, A. G. Patterson, president of Alabama Public Service Commission.

James B. Walker, secretary of the New York Transit Commission, was re-elected secretary of the association and John E. Benton was re-elected general solicitor. Lewis G. Thompson, secretary of the Florida Railroad Commission, was elected assistant secretary.

Phoenix, Ariz., was selected as the location for the thirty-sixth annual meeting to be held beginning November 11, 1924.

Freight Car Loading

WASHINGTON, D. C.

FOR THE FIRST TIME this year revenue freight car loading during the week ended December 1 fell below that for the corresponding week of last year. The total was 835,296 as compared with 840,412 for the corresponding week of 1922 and 741,849 for the corresponding week of 1921.

A considerable drop was to be expected because the week included the Thanksgiving holiday, and also because the figures naturally decline at this season of the year, but there was an especially large decrease in coal loading, which brought the figures below those for 1922. The loading of forest products, ore, merchandise and miscellaneous showed increases as compared with last year, but there was a decrease of 3,592 cars in grain and grain products, 2,359 cars of live stock, 26,902 cars of coal and 1,763 of coke. Loading of grain and grain products and of merchandise also fell below the corresponding figures for 1921, while the other commodities show increases. The summary as compiled by the Car Service Division of the American Railway Association is as follows:

REVENUE FREIGHT LOADED—WEEK ENDED SATURDAY, DECEMBER 1, 1923

Districts:	1923	1922	1921
Eastern	202,785	206,961	190,678
Allegheny	169,188	181,590	152,680
Pocahontas	33,063	28,726	23,674
Southern	127,296	124,412	108,962
Northwestern	105,327	106,275	96,387
Central Western	134,874	138,096	108,663
Southwestern	62,763	54,442	60,805
Total Western districts	302,964	298,723	265,855
Commodities:			
Grain and grain products	45,727	49,319	46,835
Live stock	32,199	34,558	31,206
Coal	156,608	183,510	136,584
Coke	11,094	12,859	6,345
Forest products	64,494	59,989	47,641
Ores	12,424	11,188	5,177
Mdse. L.C.L.	215,071	199,775	226,664
Miscellaneous	297,679	289,214	241,397
Total	835,296	840,412	741,849
November 24	990,217	946,642	673,465
November 17	991,745	957,564	790,363
November 10	1,036,067	944,186	755,777
November 3	1,035,776	979,851	837,576
Cumulative loading for year to date	46,508,986	39,888,799	36,660,582

It is interesting to note, however, that the total car loading for the 11 months of 1923, 46,508,986, exceeds the total for 12 months of 1920, the previous record year, which was 45,118,863.

Freight car surplus during the week ended November 30 increased to 153,057, while the shortages amounted to only 1,336.

MANAGERS of eight railroads at Chicago gave a dinner on December 6 to the winners of first prizes in the competitions among the boys and girls clubs at the International Live Stock Show. More than 1,600 members of the national organization were present. The roads giving the dinner were the Atchison, Topeka & Santa Fe, the Chicago, Burlington & Quincy, the Chicago & North Western, the Chicago Great Western, the Chicago, Rock Island & Pacific, the Illinois Central, the Wabash and the Chicago Junction.

Hoover Proposes Plan to Expedite Consolidations

WASHINGTON, D. C.

A PLAN for stimulating voluntary consolidations of railroads as proposed by President Coolidge in his message to Congress, is outlined in greater detail by Secretary Hoover of the Department of Commerce in his annual report to the President made public on December 11.

"The past year's experience of the department in its relations to transportation has shown even more emphatically than ever before the necessity for the consolidation of the railways into larger systems under private ownership, the principles of which were established in the Transportation Act of 1920," he says. "The difficulties of reorganizing the rate structure so as to secure simplification and to give relief in primary products—agricultural, coal, etc.—by a fairer burden upon finished and l.c.l. goods are almost insuperable until the different systems are possessed of more diversified traffic and until the weaker roads have been absorbed. The necessity to establish railway credit and finance on a broader foundation than sole reliance upon the issue of mortgage securities; the necessity of provision for common utilization of terminal and other facilities; the impossibility of providing adequate rolling stock and particularly specialized cars so long as the burden falls solely upon the strong roads; the difficulties of more definite control of car service to meet seasonal demands and routing; the insuperable problems of equalization in car interchange; the slow progress in standardization and maintenance of equipment—all point to the imminent desirability of early progress with consolidations, if we are to have a transportation system adequate to the necessities of the country and containing in itself the strength for annual increase.

"The policy of control of rates is fixed by national and state legislation. This policy has superseded the theory that reasonable rates are to be obtained through competitive action. The idea of protection against excessive rates through the maintenance of competition is now dead. We should therefore secure the largest possible benefits from consolidation into larger systems by securing consolidation in such fashion as will protect and advance public interest.

"The urgent importance of the early consummation of consolidation warrants consideration of methods to expedite it. Under the present provisions for wholly voluntary action subject to the Interstate Commerce Commission, many consolidations are likely to be long delayed. The difficulties of negotiation between the members of the groups that will be established by the Interstate Commerce Commission; the complications arising from varying priorities of securities affecting the determination of terms of purchase by one railway line of the property of another; the unwillingness of some lines to acquire or to sell others; the questions of individuality; the difficulties of establishing by negotiation the relative value of one property to another; the necessity of holding capitalization within the limits of the actual property values; the complexities and conflicts of state regulation and laws—all these problems would find a great measure of solution if the consolidated systems were allowed federal incorporation and if after a lapse of some appropriate period for voluntary action the Interstate Commerce Commission were given authority to create definite organization committees for each system including representation from the public and from the component roads. It should be the duty of such committees to develop and perfect a plan of consolidation either through the exchange of securities of the consolidated systems directly with the security holders of the component roads or by some other method. I believe that under such auspices the security holders would be willing voluntarily to make such an exchange. If a minority should refuse, it would be entirely feasible to invoke condemnation and purchase of their securities for the consolidated systems at an established fair value. Such a method would permit the determination of the relative value of the different railways considering both the physical properties and the often lower total of their securities, and due account could be taken of future as well as present conditions.

"The ownership of some roads or terminals jointly by two or more consolidated systems could be provided for, as there are cases where such a solution would be most advisable in creating more efficient transportation. The public interest could be safeguarded by limiting the total capitalization of consolidated systems to an amount not exceeding the physical value of the railways as determined by the Interstate Commerce Commission under the transportation act as of June 30, 1914, plus actual capital expenditures and deducting abandonments and depreciation since that date. The total capitalization of many of the consolidated railways would probably be less than the Interstate Commerce Commission physical valuation and certainly less than their present nominal capital. An approach to the problem through such organization committees is in accord with common business practice, and if it were made possible it should result in greatly expediting consolidations and in their perfection on terms soundly protective of public interest and with an equitable adjustment of relative values between the component roads."

The report of the transportation division of the Bureau of Foreign and Domestic Commerce says: "The outstanding work of the transportation division during the year was in connection with packing for export and the elimination of theft and pilferage. John F. Keeley, the assistant chief, headed this investigation, visiting 300 plants, in more than 30 industrial centers of the United States. The best methods of packing in use were checked by scientific bodies. The results of the investigation are being embodied in the form of a manual. Much advice on proper packing was given to exporters.

"Five lines of action were developed for the prevention of theft and pilferage: (*a*) Better packing, in accordance with specifications to be published by the bureau; (*b*) the bonding of stevedores, receiving clerks, tally clerks, and others who handle valuable shipments; (*c*) the amendment of federal legislation so that stealing from a railroad train, truck, warehouse, or other agency of transportation would be a federal crime; (*d*) the establishment of a central bureau of information on pilferage cases; and (*e*) the endeavor to get foreign countries to carry out similar measures.

"The division helped to get cars for the shipment, in this country, of wheat, potatoes, apples, citrous fruits, grapes, cattle, etc. Plans were made whereby a day's time was saved on express shipments from the Atlantic coast to middle western points. As regards the ocean bill of lading used in the lumber trade from the Gulf ports, the division was able to get a clause changed to suit southern lumber interests. In connection with the American Railway Association, the division was successful in having the embargo on automobiles for export raised at the port of New York.

"The division's routine work of answering inquiries doubled during the year. Two trade information bulletins were printed. The monograph on Steamship Services from United States Ports was completed; Inland Water Transportation in the United States was in page proof at the end of the year; Internal Communications was sent to the printer; the revision of Government Aid to Merchant Shipping was turned over to the editorial division; the manual Packing for Foreign Markets was two-thirds completed; and substantial progress had been made on a handbook of railways of Latin America. Eugene S. Gregg is chief of the transportation division."

General News Department

The **Railway General Managers' Association** of Texas re-elected its old officers at the annual meeting in Galveston, Tex., on December 6; F. G. Pettibone, president; J. S. Peter, vice-president; G. H. Webber, secretary, and Judge N. A. Stedman, counsel.

The **National Transportation Conference** to be called by the Chamber of Commerce of the United States is now expected to be held during the week of January 7 to consider the reports of the various committees appointed by President Barnes of the Chamber.

Locomotive scheduling and control is the subject for discussion at the next meeting of the Western Railway Club to be held at the Auditorium Hotel, Chicago, on December 17. L. C. Bowes, production engineer of the Chicago, Rock Island & Pacific will present a paper on this subject.

The report of W. H. Harland, chief of the signal and train control section of the Interstate Commerce Commission, on the installation of the Regan automatic train control system on the Chicago, Rock Island & Pacific has been submitted to the commission for action and it is understood that an official report on the installation may be made shortly.

The Kansas City Northwestern can be rehabilitated and put into operation if back taxes due the states of Nebraska and Kansas are cancelled, according to a committee of stockholders who have presented a report to the attorney-general of Nebraska. They are trying to arrange to have the road, which ceased operation several years ago, taken out of the receivership in the Federal Court (at St. Louis, Mo.).

Charles C. Moore, governor of Idaho, has approved a plan to celebrate the fiftieth anniversary of the coming of the first railroad to that state. It is proposed to hold the celebration in Franklin on June 14 and 15, 1924, in connection with the celebration of Idaho Pioneer Day. This first railroad was the Utah Northern, which was put into operation on May 3, 1874, and which was reorganized as the Utah & Northern and later became a part of the Oregon Short Line (Union Pacific). At that time the road extended from Ogden, Utah, to Franklin. Franklin is 93 miles north of Ogden, and is the first town in Idaho on the line from Ogden to Preston.

New Directors for the A. R. A.

Directors of the American Railway Association for the term ending in November, 1926, have been elected as follows: Canadian Territory, Sir Henry W. Thornton, Canadian National; Eastern Territory, W. W. Atterbury, Pennsylvania, and E. E. Loomis, Lehigh Valley; New England Territory; E. J. Pearson, N. Y., N. H. & H.; Southern Territory, N. D. Maher, Norfolk & Western; Western Territory, Hale Holden, C. B. & Q., and W. B. Storey, A. T. & S. F. Messrs. Samuel Rea, Ralph Budd and C. E. Schaff, were elected members of the committee on nominations for the term expiring in November, 1925.

Cartage Costs and Off Track Stations

The regular meeting of the Society of Terminal Engineers was held at the Engineering Societies Building, New York City, on Tuesday evening, December 11, the principal subject being a paper on Cartage Practice at Inter-terminal and Off-Track Freight Stations, by J. F. Murphy, vice-president, Columbia Terminals Company, St. Louis, Mo. This paper was, in reality, a general description of the motor truck and trailer installation which is in operation for l. c. l. interchange and l. c. l. and carload local freight between East St. Louis and St. Louis proper. This paper was discussed by J. E. Ramsey, chief statistician, Port of New York Authority; J. T. Montell, vice-president, Eastern region, Erie Railroad; B. F. Fitch, president, Cincinnati Motor Terminals Company. The early part of the discussion was largely in regard to the elimination of terminal congestion and the rehandling of freight. The latter part dealt chiefly with the relative merits, investment, cost of operation, etc., of motor truck and trailers versus motor trucks and containers.

Pittsburgh & West Virginia Loses Suit

The Circuit Court of Appeals for the District of Columbia has affirmed the decree of the Supreme Court of the District of Columbia dismissing the petition of the Pittsburgh & West Virginia and the West Side Belt for an injunction to restrain the Interstate Commerce Commission and the attorney general of the United States from proceeding to enforce penalties or otherwise interfere with the issuance of stock and assumption of certain liabilities by the Pittsburgh & West Virginia, for which the commission had denied authority. The railroad contested the constitutionality of section 20-a of the interstate commerce act on the ground that it is not a regulation of interstate commerce, nor within the power of Congress. The court held that when the power of a state comes in conflict with that of Congress under the constitution, the authority of the state must yield and that the power to regulate security issues falls clearly within the constitutional authority of Congress to regulate interstate commerce.

Great Northern Valuation

Ralph Budd, president, and other officials of the Great Northern testified before the Interstate Commerce Commission this week at the hearing which has been going on for some time on the railroad's protest against the commission's valuation of the Great Northern property and suggested that valuation for rate-making purposes should be based on what it would cost the shippers as a group to duplicate the transportation service for themselves if the road were not now in existence, that is, the cost of reproducing the plant or building an equally serviceable one. C. O. Jenks and W. P. Kenney, vice-presidents, and G. H. Hess, controller, supplemented Mr. Budd's testimony. The point was made that if the railroad were not in existence shippers in its territory would demand the construction of one even at present prices, and that they would and could pay rates sufficient to pay interest on the present cost of such a road rather than do without it. It was also contended that the cost of duplicating the service would include the cost of obtaining the necessary capital. Mr. Hess testified that on the basis of the valuation placed by the commission tentatively upon the operating properties in the United States, the assets of the Great Northern exceed its outstanding stock and bonds by over $143,000,000 and he urged that the commission should upon its own figures make a finding that the Great Northern is undercapitalized. The 1915 capitalization of $607,577,422, he said, includes $215,227,000 of joint Northern Pacific-Great Northern bonds issued in purchase of the stock of the Chicago, Burlington & Quincy and half of them are payable by the Northern Pacific, so that it is fair to consider that only the remaining $392,528,422 of stocks and bonds is primarily dependent upon the Great Northern operating properties and other assets. The commission had placed a tentative value of $396,290,302 on the operating properties in the United States of the Great Northern and the Montana Eastern. In addition to this, he said, the company owns 600 miles of line in Canada, several subsidiaries in the United States, and a one-half interest in the Spokane, Portland & Seattle, and interests in various terminal, coal, lumber and land companies and non-carrier lands, representing an investment of over $143,000,000 and having a value substantially in excess of that amount, the ownership of all of which is represented by the stocks and bonds of the Great Northern.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1923

Name of road.		Average mileage operated during period.	Operating revenues			Operating expenses					Operating ratio.	Net from railway operation.	Operating income (or loss).	Net after rentals.	Net after rentals 1922.
						Maintenance of									
			Freight.	Passenger.	Total (inc. misc.)	Way and structures.	Equipment.	Traffic.	Transportation.	General.	Total.					
Akron, Canton & Youngstown	Oct.	170	$235,494	$682	$245,368	$28,493	$22,003	$8,735	$68,732	$8,654	$136,522	55.60	$108,846	$94,489	$57,946	$33,361
	10 mos.	170	2,163,046	9,258	2,261,369	328,420	217,361	84,733	671,994	91,004	1,392,942	61.60	868,427	726,637	435,500	379,381
Alabama & Vicksburg	Oct.	141	254,620	65,913	343,521	73,883	56,493	8,964	97,085	12,515	251,047	73.00	92,474	65,721	72,444	36,285
	10 mos.	141	2,061,950	628,361	2,893,222	467,048	515,572	90,489	960,626	119,536	2,172,804	75.10	720,418	425,966	512,426	217,986
Vicksburg, Shreveport & Pacific	Oct.	188	301,667	101,147	433,060	84,814	64,695	10,835	130,228	13,850	307,107	70.90	125,953	97,467	81,255	39,665
	10 mos.	183	2,436,649	977,815	3,682,838	534,695	630,619	110,593	1,179,111	136,380	2,616,591	71.00	1,066,247	760,058	649,164	236,573
Ann Arbor	Oct.	293	494,161	36,075	551,508	106,600	77,507	9,660	203,118	12,594	409,508	74.30	142,000	122,297	104,135	36,600
	10 mos.	293	3,940,030	403,517	4,564,819	612,494	1,070,618	90,398	1,887,718	129,201	3,790,468	83.00	774,351	560,753	280,746	329,625
Atchison, Topeka & Santa Fe	Oct.	8,981	14,811,441	3,843,453	20,285,474	2,549,742	4,781,391	319,338	5,654,034	348,532	13,519,603	66.60	6,765,871	4,570,745	4,742,823	4,561,577
	10 mos.	8,956	116,267,582	38,325,131	168,395,340	23,267,603	40,870,158	2,910,745	52,562,266	3,380,008	122,332,280	72.60	46,063,060	32,392,401	34,148,565	26,803,081
Gulf, Colorado & Santa Fe	Oct.	1,908	2,330,998	406,809	2,867,636	303,861	530,613	48,557	785,890	60,084	1,725,616	60.20	1,142,020	1,058,956	1,005,872	839,805
	10 mos.	1,908	15,875,090	3,511,367	20,582,579	3,884,129	4,996,333	450,080	6,725,937	615,578	16,649,706	80.90	3,932,873	3,118,682	2,527,370	2,464,603
Panhandle & Santa Fe	Oct.	858	711,103	155,073	910,818	175,664	231,712	9,064	250,618	18,263	684,241	75.10	226,577	205,432	172,503	120,639
	10 mos.	858	5,413,660	1,205,977	6,994,830	1,182,342	2,221,497	77,304	2,142,021	176,592	5,791,613	82.80	1,203,217	956,294	642,114	—1,815
Atlanta & West Point	Oct.	93	169,013	71,663	275,375	35,062	50,777	8,732	93,883	11,021	204,546	74.20	70,829	54,979	44,265	38,344
	10 mos.	93	1,392,697	762,646	2,441,721	360,136	405,861	93,478	855,950	115,356	1,873,291	76.70	568,430	419,828	324,297	167,995
Western Ry. of Alabama	Oct.	133	201,498	74,524	303,704	32,241	61,317	9,728	81,719	11,475	201,041	66.20	102,663	85,746	82,247	90,962
	10 mos.	133	1,548,299	713,216	2,494,057	325,143	472,693	98,803	771,407	112,772	1,817,697	72.90	676,360	541,681	518,277	417,023
Atlanta, Birmingham & Atlantic	Oct.	639	332,109	50,565	411,473	75,365	95,436	20,294	175,244	14,808	381,182	93.10	30,291	17,680	11,784	—6,118
	10 mos.	639	3,061,590	505,114	3,836,130	683,369	906,088	214,664	1,864,197	154,475	3,823,622	99.60	12,508	—117,456	—172,545	—439,322
Atlantic Coast Line	Oct.	4,860	4,815,493	1,238,909	6,634,481	823,606	1,439,289	109,365	2,319,802	145,463	4,855,867	73.20	1,778,614	1,277,735	1,496,438	1,258,875
	10 mos.	4,860	46,105,884	14,769,403	66,024,840	8,416,994	14,498,081	1,096,898	23,658,146	1,450,495	49,439,857	74.90	16,584,983	12,600,948	12,498,182	12,098,483
Charleston & Western Carolina	Oct.	342	283,173	39,076	336,649	46,396	50,646	6,767	130,070	7,094	240,973	71.60	95,676	79,670	68,743	33,801
	10 mos.	342	2,753,053	372,454	3,269,852	541,255	442,430	69,992	1,324,074	66,494	2,443,917	74.70	825,935	685,437	520,672	427,964
Baltimore & Ohio	Oct.	5,212	18,971,882	2,750,121	23,146,053	3,375,065	5,612,143	343,760	8,002,953	530,505	18,015,776	77.80	5,130,277	4,290,323	4,024,945	3,081,157
	10 mos.	5,212	179,141,629	25,730,770	218,462,026	23,288,750	54,896,108	3,248,733	79,920,040	4,873,473	167,575,556	76.70	50,886,470	42,691,212	38,957,839	15,572,377
Baltimore & Ohio Chicago Term.	Oct.	83	.....	.....	342,444	55,390	47,006	1,717	189,739	9,727	307,570	89.90	34,874	—5,604	48,034	89,751
	10 mos.	83	.....	.....	3,130,169	363,406	455,685	18,690	1,773,749	97,164	2,754,093	88.00	376,076	—30,817	400,171	836,526
Staten Island Rapid Transit	Oct.	23	85,638	98,185	213,298	54,529	32,695	1,907	124,060	15,094	228,285	107.00	—14,987	—29,511	—45,027	—79,132
	10 mos.	23	808,079	1,065,666	2,154,184	365,724	338,509	18,883	1,191,743	141,910	2,056,769	95.50	97,415	—46,943	—199,965	—476,674
Bangor & Aroostook	Oct.	616	640,641	67,537	730,978	92,819	123,792	3,943	207,278	19,844	449,928	61.60	281,050	217,264	259,788	132,372
	10 mos.	616	4,613,749	733,228	5,586,321	1,106,001	1,238,736	43,364	1,763,915	182,257	4,353,413	77.90	1,232,908	794,867	1,267,527	1,483,142
Belt Ry. of Chicago	Oct.	32	.....	.....	646,668	47,808	47,786	2,707	268,654	9,745	376,700	58.30	269,968	226,149	169,782	167,608
	10 mos.	32	.....	.....	6,050,451	496,074	575,029	24,954	2,601,088	97,764	3,794,909	62.70	2,255,542	1,855,919	1,607,833	1,387,285
Bessemer & Lake Erie	Oct.	228	2,093,527	27,477	2,151,033	135,112	816,439	18,528	505,738	26,783	1,488,878	69.20	662,155	601,299	653,382	1,227,963
	10 mos.	228	17,193,614	296,947	17,831,227	1,151,217	5,436,682	161,654	4,515,492	284,014	11,500,447	64.50	6,330,780	5,408,927	6,642,200	3,626,904
Bingham & Garfield	Oct.	34	38,906	.....	41,366	6,116	4,346	1,911	7,217	4,139	24,089	58.20	17,277	8,134	20,909	12,179
	10 mos.	34	365,703	49	381,890	87,936	45,652	13,680	98,972	37,712	285,628	74.80	96,262	17,914	136,788	—52,869
Boston & Maine	Oct.	2,286	4,849,442	1,897,195	7,592,968	1,010,124	1,629,545	60,133	3,208,103	225,060	6,160,101	81.10	1,432,867	1,175,383	859,463	624,245
	10 mos.	2,286	44,823,924	19,561,700	72,676,171	9,966,582	16,162,380	549,078	34,375,454	2,135,821	63,422,770	87.30	9,253,401	6,832,912	2,365,989	5,749,110
Brooklyn Eastern District Terminal	Oct.	9	111,582	.....	120,108	12,696	20,873	748	43,772	5,267	83,356	69.40	36,752	30,350	34,250	43,777
	10 mos.	9	1,186,053	.....	1,266,234	66,584	153,635	3,598	466,167	51,741	741,725	58.60	524,509	442,695	450,295	467,988
Buffalo & Susquehanna	Oct.	253	221,242	3,590	229,107	64,941	114,223	2,729	65,619	9,084	256,596	112.00	—27,489	—34,189	16,752	36,664
	10 mos.	253	2,232,553	50,676	2,321,842	460,571	852,121	20,792	716,930	89,116	2,139,203	92.10	182,639	74,238	567,972	97,636
Buffalo, Rochester & Pittsburgh	Oct.	589	1,407,768	125,924	1,634,784	302,823	541,152	24,087	646,399	45,175	1,553,333	95.00	81,451	46,451	181,760	287,448
	10 mos.	589	16,850,500	1,466,932	19,139,265	3,443,298	6,226,500	257,700	7,277,102	433,890	17,581,151	91.90	1,558,114	1,207,584	2,520,027	—89,098
Canadian Pacific Lines in Maine	Oct.	233	115,990	30,971	164,801	57,586	36,128	5,268	87,492	3,620	190,094	115.30	—25,293	—22,793	—35,645	—24,790
	10 mos.	233	1,671,290	358,015	2,186,254	499,813	468,388	47,329	1,075,294	37,038	2,127,862	97.30	58,392	—74,108	—193,085	—30,765
Carolina, Clinchfield & Ohio	Oct.	309	668,741	44,510	730,310	88,686	234,218	26,785	200,480	21,799	571,683	78.30	158,627	108,075	197,780	211,099
	10 mos.	309	7,148,161	463,708	7,759,214	785,585	2,211,154	252,189	2,144,675	200,187	5,591,121	72.10	2,168,093	1,666,372	2,277,090	2,472,438
Central of Georgia	Oct.	1,920	1,624,826	439,507	2,262,510	305,195	532,513	69,142	825,827	83,348	1,820,151	80.40	442,359	328,419	393,054	532,215
	10 mos.	1,920	15,153,284	4,702,912	21,973,119	2,817,368	4,663,418	690,336	8,544,717	828,102	17,619,462	80.20	4,353,657	3,320,287	3,388,903	3,476,211
Central of New Jersey	Oct.	694	3,841,875	788,934	4,924,647	524,112	1,565,710	50,077	1,864,531	102,356	4,127,077	83.80	797,570	513,211	548,365	965,151
	10 mos.	694	36,983,794	8,438,503	48,256,251	4,693,718	14,053,941	389,937	19,952,136	1,042,517	40,327,939	83.50	7,928,312	5,007,558	4,565,578	3,414,164
Central Vermont	Oct.	533	599,062	120,620	801,824	149,400	118,455	18,242	358,738	21,541	667,205	83.20	134,619	115,086	72,267	114,269
	10 mos.	533	5,408,000	1,126,618	7,342,943	1,146,290	1,247,639	132,452	3,776,567	206,208	6,516,079	88.70	826,864	620,017	110,908	249,218
Chesapeake & Ohio	Oct.	2,552	8,172,286	943,276	9,557,797	1,524,840	2,628,505	86,596	3,014,319	199,164	7,486,985	78.30	2,070,812	1,541,633	1,655,444	229,682
	10 mos.	2,552	71,333,316	9,720,631	85,392,903	10,733,588	23,585,468	852,309	28,132,235	1,855,326	65,416,600	76.60	19,976,303	16,462,985	16,917,237	12,293,935
Chicago & Alton	Oct.	1,050	2,304,677	571,431	3,113,516	414,478	791,326	60,784	1,021,074	58,661	2,388,198	75.10	775,318	631,360	442,883	—22,724
	10 mos.	1,050	20,330,495	5,698,743	28,245,005	3,519,663	9,211,515	589,396	9,637,896	555,599	21,483,372	76.10	6,761,633	5,850,068	4,509,590	453,388
Chicago & Eastern Illinois	Oct.	945	1,947,044	410,661	2,549,861	255,929	781,957	39,963	939,960	66,633	2,089,232	81.90	460,629	294,992	361,872	448,077
	10 mos.	945	17,918,313	4,180,297	23,872,360	2,563,243	7,603,097	441,465	9,152,802	684,409	20,552,933	86.10	3,319,427	2,059,873	2,787,697	1,908,350
Chicago & North Western	Oct.	8,462	10,932,582	2,466,618	14,924,884	2,623,923	2,872,433	168,633	5,808,664	369,322	11,881,633	79.60	3,043,251	2,190,817	1,982,656	1,808,430
	10 mos.	8,462	95,820,136	25,439,386	135,246,521	19,868,621	31,134,109	1,700,008	56,135,437	3,403,003	112,775,227	83.40	22,471,294	14,830,034	12,436,388	14,543,962
Chicago, Burlington & Quincy	Oct.	9,405	11,806,881	2,404,577	15,614,106	1,855,521	3,421,480	228,642	5,755,865	372,999	11,723,069	75.10	3,891,037	3,273,609	2,995,928	3,269,334
	10 mos.	9,400	105,952,352	24,103,834	143,722,485	19,771,061	34,298,348	2,351,886	53,368,540	3,601,652	114,380,914	79.60	29,341,571	21,256,584	19,520,212	19,159,631
Chicago Great Western	Oct.	1,496	1,867,929	354,909	2,430,552	298,706	418,525	63,822	949,291	57,212	1,881,142	74.10	629,410	555,778	432,498	—120,661
	10 mos.	1,496	16,302,430	3,596,772	21,697,969	3,416,247	4,631,051	644,096	9,013,067	544,641	18,377,302	84.70	3,320,667	2,549,733	1,509,190	8,028

Chicago Great Western	Oct.	1,496	1,867,929	354,900	2,430,552	298,706	418,525	63,822	949,291	57,212	1,801,142	74.10	629,410	555,778	432,498	—120,661
	10 mos	1,496	16,302,430	3,596,772	21,697,969	3,416,247	4,631,051	644,096	9,013,067	544,641	18,377,302	84.70	3,320,667	2,549,733	1,509,190	8,028

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1923—CONTINUED

Name of road.		Average mileage operated during period.	Operating revenues: Freight.	Passenger.	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures.	Maintenance of Equipment.	Traffic.	Transportation.	General.	Total.	Operating ratio.	Net from railway operation.	Operating income (or loss).	Net after rentals.	Net after rentals 1922.
Chicago, Indianapolis & Louisville	Oct.	657	$1,199,757	$270,464	$1,621,269	$155,777	$330,323	$31,446	$531,904	$33,692	$1,098,893	67.80	$522,376	$415,234	$271,702	$243,034
	10 mos.	657	10,963,838	2,692,841	15,081,398	1,486,787	3,299,950	327,476	5,309,309	335,130	10,911,912	72.40	4,169,486	3,311,155	1,972,041	1,439,290
Chicago, Milwaukee & St. Paul	Oct.	11,005	11,877,197	1,938,341	15,365,219	2,127,402	3,063,776	234,108	5,680,739	327,790	11,505,311	74.90	3,859,908	3,200,972	2,626,005	2,224,314
	10 mos.	11,014	107,604,274	20,385,709	142,648,113	20,045,837	32,937,324	2,055,827	56,089,848	3,148,162	114,867,208	80.50	27,780,905	20,392,163	15,228,083	10,205,385
Chicago, Peoria & St. Louis	Oct.	247	109,059	12,756	134,519	24,336	19,652	1,835	60,107	9,787	115,717	86.00	18,802	18,798	—2,168	—336,656
	10 mos.	247	931,328	133,417	1,167,588	188,723	211,098	22,214	627,350	90,170	1,139,555	97.60	28,033	—38,595	—178,381	—394,931
Chicago River & Indiana	Oct.	19	.....	.....	684,116	87,232	74,999	871	249,566	11,692	424,360	62.00	259,756	220,058	306,268	285,831
	10 mos.	19	.....	.....	6,239,397	653,877	670,979	9,347	2,412,208	115,969	3,862,380	61.90	2,377,017	2,013,304	2,767,314	2,252,642
Chicago, Rock Island & Pacific	Oct.	7,635	8,335,627	2,241,022	11,418,170	1,374,753	2,502,146	187,944	4,399,686	282,688	8,797,750	77.10	2,620,420	2,214,493	1,836,262	1,522,828
	10 mos.	7,635	73,683,961	22,146,927	103,639,641	12,333,901	24,012,520	1,866,638	42,926,210	2,622,185	84,142,287	81.20	19,497,354	14,899,137	10,955,626	11,187,294
Chicago, Rock Island & Gulf	Oct.	461	419,128	76,892	531,479	57,435	82,234	13,375	215,075	14,766	384,029	72.30	147,450	135,103	111,211	39,666
	10 mos.	461	3,587,597	745,352	4,714,710	733,478	754,512	131,828	2,169,449	150,404	3,951,760	83.80	762,950	639,543	427,846	598,252
Chicago, St. Paul, Minn. & Omaha	Oct.	1,749	1,980,128	465,940	2,648,335	346,111	527,538	36,233	1,084,520	73,987	2,075,338	78.40	572,997	436,974	377,959	334,835
	10 mos.	1,749	16,749,108	5,164,065	23,704,186	3,221,642	4,902,891	349,239	10,767,366	710,279	20,031,730	84.50	3,672,456	2,352,504	2,227,377	2,886,209
Cinn., Indianapolis & Western	Oct.	347	358,312	37,446	430,799	60,586	109,496	11,497	161,335	20,557	364,682	84 60	66,117	45,789	32,478	28,645
	10 mos.	347	3,213,287	393,324	3,906,289	469,680	861,063	115,526	1,589,053	190,591	3,239,647	82.90	666,642	464,706	270,683	65,356
Colorado & Southern	Oct.	1,099	940,640	152,439	1,173,033	157,011	275,982	14,339	422,827	47,452	927,257	79.00	245,776	177,149	187,460	—68,575
	10 mos.	1,099	7,884,537	1,757,173	10,435,034	1,601,120	2,981,075	136,557	4,146,435	428,824	9,380,245	89.90	1,054,789	390,942	454,940	1,091,882
Ft. North & Denver City	Oct.	456	701,366	226,203	983,158	94,562	169,463	13,159	286,545	35,392	606,482	61.70	376,676	351,985	344,998	130,201
	10 mos.	456	5,520,978	1,772,923	7,773,768	833,531	1,814,600	127,447	2,435,481	347,792	5,601,646	72.10	2,172,122	1,777,982	2,107,581	1,972,490
Wichita Valley	Oct.	271	155,372	39,319	206,654	19,521	9,650	76	54,557	2,244	85,729	41.50	120,925	113,485	85,637	42,468
	10 mos.	268	880,987	232,370	1,185,831	179,323	104,745	425	422,204	16,962	717,867	60.50	467,964	401,492	262,552	121,146
Columbus & Greenville	Oct.	167	117,418	28,892	153,380	38,363	20,982	3,318	52,451	10,062	125,176	81.60	28,204	25,705	12,041	40,426
	10 mos.	167	923,190	296,323	1,288,373	375,014	186,136	31,827	472,552	97,483	1,161,696	90.20	126,677	120,117	—7,486	129,954
Delaware & Hudson	Oct.	886	3,658,389	334,749	4,211,118	470,838	1,206,498	41,130	1,601,196	143,369	3,472,932	82.50	738,186	643,586	624,598	119,372
	10 mos.	886	33,685,642	3,471,106	39,502,561	3,595,734	10,818,934	399,546	16,193,108	1,401,122	32,657,195	82.70	6,845,366	5,973,173	5,559,836	745,373
Delaware, Lackawanna & Western	Oct.	993	6,151,898	1,198,152	8,206,353	652,666	1,875,220	128,475	3,220,965	156,896	6,086,010	74.20	2,120,343	1,454,874	1,548,178	799,762
	10 mos.	993	52,794,963	11,979,251	73,083,044	6,633,407	17,825,776	1,074,107	30,804,903	1,552,742	58,439,757	80.00	14,643,287	10,066,657	10,975,490	5,858,263
Denver & Rio Grande Western	Oct.	2,593	2,783,194	496,947	3,783,788	604,937	733,843	42,971	1,308,231	88,938	2,827,350	74.70	956,438	813,010	760,972	216,058
	10 mos.	2,593	20,826,031	4,951,555	28,502,355	4,718,171	8,037,797	483,888	10,659,095	835,480	25,228,605	88.50	3,273,750	1,629,692	2,203,978	5,121,012
Denver & Salt Lake	Oct.	255	242,536	18,601	296,985	58,741	87,213	1,180	101,234	7,014	255,382	86.10	41,603	32,598	26,797	2,571
	10 mos.	255	1,738,872	231,218	2,213,684	485,936	764,775	11,894	814,742	59,864	2,137,211	96.60	76,473	—13,672	1,780	—160,218
Detroit & Mackinac	Oct.	375	180,338	23,069	218,022	25,375	46,252	1,858	66,053	5,638	145,073	66.50	72,949	63,397	66,117	35,913
	10 mos.	381	1,191,334	292,917	1,619,122	334,751	485,437	20,072	611,677	57,494	1,508,070	93.00	111,052	28,436	103,294	42,435
Detroit & Toledo Shore Line	Oct.	61	350,731	.....	359,757	38,331	51,777	2,739	93,413	7,119	193,379	53.80	166,378	138,078	59,856	52,863
	10 mos.	61	3,509,010	.....	3,560,586	307,365	362,940	24,740	1,040,165	77,904	1,813,114	50.90	1,747,472	1,544,472	643,958	686,529
Detroit, Toledo & Ironton	Oct.	454	937,071	9,094	961,364	168,955	84,658	9,134	306,981	27,480	591,067	61.50	370,297	351,613	147,727	—174,457
	10 mos.	454	8,551,198	98,415	8,822,316	1,213,247	1,200,581	67,160	2,939,336	238,401	5,578,185	63.20	3,244,131	3,097,936	1,654,677	—168,807
Duluth & Iron Range	Oct.	279	766,244	14,563	849,353	101,849	125,609	1,111	228,267	17,106	484,461	57.00	364,892	290,648	295,828	171,126
	10 mos.	279	6,370,157	178,242	7,143,294	987,431	1,305,883	12,440	2,136,708	186,478	4,633,293	64.90	2,510,001	1,971,336	2,011,317	1,938,372
Duluth, Missabe & Northern	Oct.	304	2,590,714	12,179	2,823,991	203,012	208,016	3,617	516,614	19,905	951,822	33.70	1,872,169	1,592,151	1,589,345	838,247
	10 mos.	305	18,284,413	185,332	20,225,846	1,734,114	1,954,629	30,775	3,851,270	206,606	7,789,339	38 50	12,436,507	10,206,551	10,166,094	5,991,859
Duluth, South Shore & Atlantic	Oct.	591	344,750	91,549	480,245	86,800	100,375	6,884	209,473	10,922	419,567	87.40	60,678	32,678	14,224	43,113
	10 mos.	591	3,497,345	997,802	4,948,941	697,920	769,435	64,014	2,280,328	118,257	3,986,802	80.60	962,139	676,011	489,386	28,090
Duluth, Winnipeg & Pacific	Oct.	178	142,577	21,261	170,017	47,431	41,222	851	84,242	7,310	181,125	106.50	—11,108	—19,609	—29,925	—5,710
	10 mos.	178	1,700,603	223,346	1,988,007	368,029	429,630	31,634	861,211	76,848	1,766,826	88.90	221,181	76,442	24,743	—33,360
Elgin, Joliet & Eastern	Oct.	459	2,018,063	10	2,214,802	231,043	636,949	11,470	728,947	36,831	1,644,800	74.30	570,002	488,949	280,161	397,546
	10 mos.	459	21,077,527	104	23,536,110	1,917,456	5,811,340	120,667	7,324,651	369,891	15,540,832	66 00	7,995,278	7,050,547	5,092,072	4,277,714
El Paso & Southwestern	Oct.	1,139	892,561	154,025	1,109,074	218,180	222,454	32,077	265,403	41,551	788,695	71.10	320,379	248,415	248,741	164,121
	10 mos.	1,139	8,266,255	1,686,910	10,512,009	1,916,523	2,092,505	345,832	2,858,847	412,825	7,717,357	73.40	2,794,652	1,825,987	1,636,517	1,853,054
Erie Railroad	Oct.	2,039	8,790,517	1,107,309	10,652,293	1,183,647	3,339,133	156,781	3,732,665	279,999	8,735,477	82.00	1,916,816	1,532,620	1,738,286	549,253
	10 mos.	2,039	81,139,398	11,626,816	100,021,809	11,209,680	28,330,370	1,395,932	39,110,335	2,837,458	83,339,049	83.30	16,682,760	13,248,194	14,530,489	650,119
Chicago & Erie	Oct.	269	1,257,487	69,546	1,416,987	133,851	265,837	21,718	437,791	35,759	895,003	63 20	521,984	469,373	148,849	—67,860
	10 mos.	269	10,500,664	690,354	11,937,446	1,236,548	2,028,378	209,958	4,355,962	371,012	8,188,778	68.60	3,748,668	3,227,992	10,201	—1,426,014
New Jersey & New York	Oct.	45	25,449	101,662	132,894	24,416	21,205	1,557	68,843	3,996	120,017	90.30	12,877	9,547	--17,915	—38,919
	10 mos.	45	244,835	1,037,209	1,333,772	168,832	212,420	13,942	683,161	40,671	1,119,021	83.90	214,751	180,783	—103,861	—179,368
N. Y., Susquehanna & Western	Oct.	135	308,800	60,509	410,512	59,599	84,077	4,098	211,524	12,892	372,190	90.70	38,322	1,762	5,764	28,239
	10 mos.	135	2,946,537	629,978	4,053,300	552,318	773,014	36,728	2,217,987	121,035	3,701,066	91.30	352,234	32,486	3,955	—256,615
Evansville, Ind. & Terre Haute	Oct.	137	157,804	5,752	172,749	33,683	9,604	1,655	58,055	3,160	99,795	57.80	72,954	69,671	18,792	—21,421
	10 mos.	137	1,316,357	66,039	1,457,931	378,286	95,240	17,921	584,199	30,389	1,079,860	74.10	378,071	338,586	—35,835	—338,379
Florida East Coast	Oct.	764	765,347	262,017	1,156,585	343,461	256,344	10,204	359,448	31,906	976,409	84.40	180,176	55,879	16,793	67,921
	10 mos.	764	7,701,344	3,830,909	13,128,984	1,994,369	2,119,329	130,978	3,959,413	300,561	8,617,001	65.60	4,511,983	3,463,587	2,841,884	2,244,322
Ft. Smith & Western	Oct.	249	118,036	25,990	156,326	32,123	38,565	4,971	50,205	8,944	135,625	86.70	20,701	14,001	5,084	36,855
	10 mos.	249	963,470	235,598	1,299,424	263,569	273,393	48,357	456,543	73,932	1,123,665	86 05	175,759	116,354	59,574	108,295
Galveston Wharf Co.	Oct.	13	.....	.....	180,222	39,369	3,582	774	51,850	2,553	103,248	57.30	76,974	56,974	56,886	96,310
	10 mos.	13	.....	.....	1,209,113	366,212	38,300	7,166	332,514	31,170	865,899	71.60	343,214	161,126	162,798	96,384
Georgia	Oct.	328	464,287	102,736	603,017	88,637	101,324	20,871	214,216	19,862	445,154	73.80	157,863	151,530	138,893	132,455
	10 mos.	328	3,754,188	1,080,603	5,160,286	579,736	961,823	209,212	2,107,379	198,597	4,057,126	78.60	1,103,160	1,037,108	945,056	609,257

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1923—CONTINUED

Name of road.		Average mileage operated during period.	Operating revenues: Freight.	Passenger.	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures.	Maintenance of Equipment.	Traffic.	Transportation.	General.	Total.	Operating ratio.	Net from railway operation.	Operating income (or loss).	Net after rentals.	Net after rentals 1922.
Georgia & Florida	Oct.	405	$136,502	$22,861	$169,303	$20,446	$19,033	$8,216	$62,796	$8,791	$119,496	70.60	$49,807	$43,548	$32,648	$25,724
	10 mos.	405	1,178,952	203,476	1,471,742	185,342	189,651	84,071	590,699	74,573	1,126,448	76.50	345,294	281,651	187,373	63,857
Grand Trunk Western	Oct.	347	1,413,318	193,271	1,693,394	219,798	324,765	50,341	595,657	104,532	1,302,210	76.90	391,184	327,495	97,537	21,431
	10 mos.	347	13,794,844	1,987,587	16,775,903	1,620,631	3,230,054	373,442	6,001,227	553,446	11,852,313	70.70	4,923,590	4,324,896	1,779,644	496,993
Atlantic & St. Lawrence	Oct.	166	113,078	48,935	180,558	105,135	80,701	4,525	126,176	28,353	346,704	192.02	—166,146	—181,296	—235,792	—123,463
	10 mos.	166	2,021,094	347,239	2,528,670	782,457	558,229	46,618	1,656,534	106,226	3,162,505	125.06	—633,835	—785,391	—1,652,196	—877,317
Chi., Detroit & Can. Gr. Tr. Jct.	Oct.	59	206,977	9,101	258,618	28,461	12,649	6,086	84,475	6,859	138,515	53.60	120,103	111,885	86,264	80,262
	10 mos.	59	2,392,860	96,145	2,850,049	193,033	172,477	43,169	862,885	39,693	1,311,173	46.00	1,538,876	1,446,776	1,170,483	563,181
Detroit, Grand Haven & Milwaukee	Oct.	189	594,893	40,664	674,875	137,474	60,362	15,013	273,822	34,562	521,425	77.30	153,450	150,785	64,748	119,088
	10 mos.	189	4,833,162	429,275	5,781,775	799,800	671,077	109,241	2,622,148	177,525	4,385,321	75.80	1,396,454	1,358,255	493,133	380,727
Great Northern	Oct.	8,251	11,899,176	1,244,848	14,158,441	1,224,931	1,557,101	151,537	4,346,037	228,500	7,513,344	53.10	6,645,097	5,611,406	5,294,339	2,721,327
	10 mos.	8,254	77,374,644	12,867,117	99,443,973	13,502,589	18,615,899	1,523,839	38,146,050	2,128,647	74,083,166	74.50	25,360,807	17,953,912	18,569,506	12,805,569
Green Bay & Western	Oct.	234	105,380	8,853	121,771	15,270	26,625	2,233	45,105	2,421	91,654	75.20	30,117	25,117	20,725	15,869
	10 mos.	234	879,785	133,263	1,094,955	182,023	240,498	24,129	451,528	27,115	924,960	84.40	169,995	92,619	108,704	146,792
Gulf Coast Lines	Oct.	922	868,051	182,509	1,108,392	176,760	151,750	31,009	268,518	34,506	670,563	60.50	437,829	384,053	363,347	294,568
	10 mos.	922	7,331,455	1,801,565	9,697,880	1,525,305	1,426,261	284,646	2,554,224	378,001	6,141,430	63.30	3,556,449	3,036,534	2,912,755	2,317,922
Gulf & Ship Island	Oct.	307	240,693	43,671	315,112	69,292	47,798	10,302	97,913	12,774	247,650	78.60	67,462	44,431	34,431	30,944
	10 mos.	307	2,074,921	410,385	2,765,724	524,095	406,337	85,579	829,149	132,341	2,077,345	75.10	688,379	452,830	374,668	464,219
Gulf, Mobile & Northern	Oct.	465	511,575	41,179	575,128	91,275	87,776	16,712	194,219	16,017	405,999	70.60	169,129	126,898	101,620	85,410
	10 mos.	465	4,361,048	421,391	4,976,586	739,611	825,858	169,960	1,753,105	169,526	3,655,750	73.50	1,320,835	1,024,186	852,233	665,909
Hocking Valley	Oct.	348	1,478,965	91,264	1,712,609	184,173	664,818	12,710	461,954	43,330	1,366,956	79.80	345,653	244,953	215,728	82,909
	10 mos.	348	13,079,400	939,681	15,110,797	1,466,445	5,548,660	131,904	4,417,742	370,943	11,730,610	77.60	3,380,187	2,486,349	2,464,297	1,937,238
Illinois Central	Oct.	4,839	11,223,921	2,149,798	14,334,184	2,374,393	3,485,198	201,660	5,245,206	328,649	11,643,785	81.20	2,690,399	1,792,959	1,723,328	2,889,921
	10 mos.	4,839	107,955,787	22,236,053	139,881,918	20,483,167	33,894,628	1,921,544	52,235,940	3,153,804	11,987,541	80.10	27,894,377	19,902,815	19,213,881	20,513,287
Yazoo & Mississippi Valley	Oct.	1,380	1,690,202	351,648	2,154,096	412,326	358,608	23,326	723,767	44,595	1,557,001	72.30	597,095	475,658	444,823	314,536
	10 mos.	1,380	12,777,577	3,440,675	17,173,846	3,904,363	3,712,087	233,161	6,596,223	438,646	14,823,272	86.30	2,350,574	1,234,822	1,066,157	662,834
Illinois Central Comb'd Report	Oct.	6,219	12,914,123	2,501,446	16,488,280	2,786,719	3,843,806	224,986	5,968,973	373,244	13,200,786	80.10	3,287,494	2,268,617	2,168,151	3,204,457
	10 mos.	6,219	120,733,364	25,676,728	157,055,764	24,387,530	37,666,715	2,154,705	58,832,163	3,592,450	126,810,813	80.70	30,244,951	21,137,637	20,280,038	21,176,121
International—Great Northern	Oct.	1,159	1,419,188	250,436	1,805,860	307,999	264,265	35,908	584,701	46,631	1,231,055	68.17	574,805	542,190	453,395	198,976
	10 mos.	1,159	9,436,567	2,158,228	12,681,598	2,403,997	2,271,471	308,683	4,756,593	475,017	10,246,376	80.80	2,435,222	2,109,314	1,676,223	1,187,724
Kansas City, Mexico & Orient	Oct.	272	103 505	4,513	114,336	63,482	23,441	4,854	60,588	5,002	157,367	137.60	—43,031	—43,031	—54,022	—23,569
	10 mos.	272	1,332,446	79,043	1,501,124	351,687	314,536	54,003	716,623	53,364	1,490,171	99.20	10,953	—37,851	—57,826	—173,038
Kan. City, Mex. & Orient of Tex.	Oct.	465	159,393	15,000	181,461	25,102	18,146	5,055	67,343	5,302	120,948	66.70	60,513	60,372	46,109	—3,379
	10 mos.	465	1,275,167	111,037	1,451,501	260,599	337,008	56,084	716,864	55,606	1,425,761	98.20	25,740	—12,057	—160,669	—346,747
Kansas City Southern	Oct.	767	1,493,687	180,773	1,815,382	365,700	305,570	41,157	549,147	73,687	1,328,427	73.20	486,955	398,558	341,008	213,315
	10 mos.	767	13,366,405	1,834,761	16,609,744	2,491,222	3,399,734	391,508	5,623,975	713,931	12,609,247	75.90	4,000,497	3,120,104	2,720,000	2,317,162
Texarkansas & Ft. Smith	Oct.	95	223,936	16,677	298,517	71,328	32,913	4,927	84,646	9,289	216,834	72.60	81,683	57,723	26,233	73,325
	10 mos.	95	1,985,460	155,066	2,376,111	242,512	229,305	50,313	624,728	86,472	1,246,041	52.40	1,130,070	1,002,093	736,302	437,895
Kansas, Oklahoma & Gulf	Oct.	314	190,544	14,099	211,521	48,644	23,748	8,419	76,199	12,413	169,725	80.20	41,796	31,831	27,697	66,618
	10 mos.	314	1,884,983	114,876	2,070,506	394,245	335,910	71,187	809,634	117,702	1,729,469	83.50	341,037	241,548	128,414	452,301
Lake Superior & Ishpeming	Oct.	33	124,911	41	149,862	20,375	14,559	216	31,196	3,021	69,367	46.30	80,495	73,203	73,461	54,275
	10 mos.	33	963,453	629	1,154,051	210,457	141,684	2,524	253,275	30,344	638,384	55.30	515,667	441,090	452,092	421,834
Lake Terminal	Oct.	13	.....	.....	93,792	21,749	24,204	.....	57,278	1,661	104,892	111.80	—11,100	—17,035	—19,536	32,654
	10 mos.	13	.....	.....	968,288	163,798	172,380	.....	563,963	17,663	917,804	94.80	50,484	—12,042	13,938	252,108
Lehigh & Hudson River	Oct.	96	284,160	3,655	298,190	36,831	53,072	1,542	98,006	9,247	198,698	66.60	99,492	82,992	57,869	47,051
	10 mos.	96	2,410,635	35,668	2,566,696	254,661	443,754	15,709	932,725	85,649	1,732,498	67.50	834,198	702,896	562,732	58,963
Lehigh & New England	Oct.	219	462,561	1,776	473,579	85,615	142,357	11,233	159,595	16,183	414,801	87.60	58,778	47,820	54,946	187,790
	10 mos.	219	4,856,627	19,226	4,959,688	644,892	1,292,388	75,131	1,548,453	166,320	3,726,187	75.10	1,233,501	1,042,007	1,131,025	391,029
Lehigh Valley	Oct.	1,335	6,507,666	590,772	7,556,650	746,391	2,131,444	109,475	2,850,534	129,875	5,993,311	79.30	1,563,339	1,318,656	1,382,260	—635,865
	10 mos.	1,335	52,117,314	6,226,926	62,898,112	6,492,867	20,874,208	966,879	26,675,873	1,254,773	56,519,644	89.90	6,378,468	4,247,586	4,161,701	104,967
Los Angeles & Salt Lake	Oct.	1,209	1,712,047	627,044	2,545,523	300,226	364,002	55,774	761,541	60,692	1,598,118	62.80	947,405	818,153	712,875	231,875
	10 mos.	1,187	13,021,750	5,532,572	20,259,922	3,089,963	4,559,089	508,075	6,395,767	533,520	15,567,800	76.80	4,692,122	3,535,478	2,884,212	1,062,367
Louisiana & Arkansas	Oct.	302	280,525	35,150	324,173	64,480	45,484	8,475	96,056	8,953	222,894	68.80	101,279	69,754	60,651	28,194
	10 mos.	302	2,720,084	337,667	3,139,538	569,281	449,649	81,195	953,510	86,422	2,130,803	67.90	1,008,735	753,718	690,147	559,959
Lousiana Ry. & Navigation Co.	Oct.	343	319,937	31,961	372,056	65,009	56,897	9,719	125,639	10,705	267,729	72.00	104,327	87,210	59,097	63,355
	10 mos.	343	2,767,945	312,073	3,254,262	645,657	604,984	104,888	1,290,264	110,623	2,755,226	84.70	499,036	325,113	112,784	69,136
Lousiana Ry. & Nav. Co. of Texas	Oct.	206	138,860	19,848	165,071	24,632	13,879	3,453	56,719	4,948	103,604	62.80	61,467	57,467	43,631	.....
	10 mos.	206	616,476	108,228	761,766	127,520	94,481	21,492	344,388	32,827	619,778	81.40	141,988	113,988	18,673	.....
Louisville & Nashville	Oct.	5,049	9,487,974	2,093,449	12,313,661	1,728,098	3,026,667	212,486	4,605,953	256,366	9,860,772	80.10	2,452,889	1,951,323	2,023,356	1,969,317
	10 mos.	5,044	84,858,666	21,672,221	113,700,355	14,983,159	29,025,618	2,239,099	42,537,455	2,420,220	91,630,323	80.60	22,070,032	17,384,216	18,062,520	14,932,484
Louisville, Henderson & St. Louis	Oct.	199	237,693	61,334	318,660	49,022	44,192	6,759	90,686	8,742	199,401	62.60	119,259	99,782	87,596	55,162
	10 mos.	199	2,089,205	640,324	2,919,586	608,913	382,520	65,615	910,932	90,191	2,058,171	70.50	861,415	723,093	601,461	497,649
Maine Central	Oct.	1,201	1,350,178	374,355	1,855,284	254,615	443,850	14,516	728,098	45,728	1,489,273	80.30	366,011	266,516	264,346	162,150
	10 mos.	1,201	12,321,882	4,123,495	17,822,600	2,862,845	3,443,496	137,718	8,147,394	471,753	15,102,091	84.70	2,720,509	1,732,222	1,523,996	2,030,695
Midland Valley	Oct.	365	328,449	66,042	405,937	87,399	46,632	5,571	117,565	17,115	271,710	66.90	134,227	118,968	103,790	98,450
	10 mos.	365	2,962,757	634,508	3,763,867	719,340	502,005	53,100	1,146,491	176,506	2,560,072	68.00	1,203,795	1,050,110	941,988	1,167,551
Minneapolis & St. Louis	Oct.	1,649	1,348,857	120,977	1,547,281	279,635	286,861	25,299	673,280	44,671	1,309,957	84.70	237,324	168,987	23,241	245,388
	10 mos.	1,649	11,735,311	1,397,836	13,856,086	1,960,362	3,156,054	257,175	6,118,519	437,818	11,928,153	86.10	1,927,933	1,284,259	789,385	964,855

10 mos.	1,649	11,735,311	1,397,836	13,856,086	1,960,362	3,156,054	257,175	6,118,519	437,818	11,928,153	86.10	1,927,933	1,284,259	789,385	964,855		

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1923—CONTINUED

Name of road.		Average mileage operated during period.	Operating revenues: Freight.	Passenger.	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures.	Maintenance of Equipment.	Traffic.	Transportation.	General.	Total.	Operating ratio.	Net from railway operation.	Operating income (or loss).	Net after rentals.	Net after rentals 1922.
Minneapolis, St. Paul & S. S. Marie	Oct.	4,402	$3,712,842	$589,808	$4,668,291	$636,063	$791,246	$59,214	$1,721,840	$107,385	$3,332,467	71.40	$1,335,824	$1,105,278	$960,817	$876,708
	10 mos.	4,395	31,799,122	6,513,677	41,766,502	5,565,637	7,440,526	592,758	17,362,344	1,074,441	32,221,824	77.10	9,544,678	6,969,406	6,574,976	5,770,968
Mississippi Central	Oct.	257	134,132	17,495	158,049	25,992	31,366	6,375	49,671	7,528	120,899	76.50	37,150	32,516	38,825	20,144
	10 mos.	257	1,276,452	167,620	1,497,694	309,579	264,145	57,756	501,991	72,964	1,206,287	80.50	291,407	238,502	234,155	121,968
Missouri & North Arkansas	Oct.	364	115,995	22,299	149,145	29,491	31,000	4,721	58,072	6,292	129,576	86.90	19,569	16,476	9,792	39,065
	10 mos.	364	948,308	224,297	1,253,170	231,261	191,980	35,528	526,451	66,710	1,047,845	83.60	205,325	178,807	94,336	39,000
Missouri-Kansas-Texas	Oct.	1,813	2,324,925	499,201	3,132,213	664,588	1,041,757	62,965	841,968	91,788	2,708,466	86.50	423,747	278,437	371,891	880,030
	10 mos.	1,896	21,520,342	4,938,270	28,964,599	5,542,742	8,457,784	529,085	8,565,765	1,021,800	22,128,909	76.40	6,835,690	5,189,733	6,342,063	7,354,253
Missouri-Kansas-Texas of Texas	Oct	1,389	1,620,115	507,253	2,300,300	402,373	413,560	49,067	790,154	65,553	1,721,453	74.80	578,847	532,664	316,282	312,214
	10 mos.	1,494	11,291,962	4,283,833	17,123,145	2,495,160	3,481,577	410,516	6,797,794	729,590	13,921,588	81.30	3,201,555	2,702,675	782,820	1,858,271
Missouri Pacific	Oct.	7,364	8,472,215	1,662,053	11,059,537	1,636,869	2,996,820	186,716	4,129,978	309,466	9,325,221	84.30	1,734,316	1,400,161	1,053,860	668,525
	10 mos.	7,209	70,957,985	15,738,524	94,738,751	13,672,998	25,632,237	1,658,554	37,301,789	2,780,484	81,562,019	86.10	13,176,732	9,436,370	6,725,485	6,013,204
Mobile & Ohio	Oct.	1,165	1,482,639	166,609	1,754,683	262,370	467,057	39,728	641,424	52,249	1,462,527	83.40	292,156	216,290	160,322	307,496
	10 mos.	1,165	14,300,428	1,662,397	16,891,944	2,234,942	3,862,882	455,541	6,192,353	467,963	13,211,685	78.20	3,680,259	2,841,376	2,377,383	2,113,796
Monongahela	Oct.	106	426,704	33,551	470,587	94,135	150,277	1,107	138,598	10,932	383,679	81.50	86,908	76,999	—17,260	59,699
	10 mos.	106	4,419,636	371,081	4,865,644	612,066	1,103,174	11,124	1,469,500	94,045	3,282,761	67.50	1,582,883	1,483,317	663,110	558,902
Monongahela Connecting	Oct.	7	.....	.....	229,176	31,451	45,037	374	108,969	4,031	189,862	82.80	39,314	36,714	14,231	—4,023
	10 mos.	7	.....	.....	2,313,938	272,497	397,880	5,292	1,157,823	48,599	1,882,091	81.30	431,847	407,313	209,048	134,239
Montour	Oct.	57	220,383	389	223,409	44,279	73,666	963	44,297	7,409	170,614	76.40	52,795	42,051	65,501	112,949
	10 mos.	57	2,088,694	4,665	2,118,407	350,973	580,557	10,758	411,746	71,413	1,425,447	67.30	692,960	564,138	828,683	151,129
Nashville, Chattanooga & St. Louis	Oct.	1,258	1,710,423	423,929	2,284,432	451,712	585,534	68,055	819,743	63,576	1,985,809	86.90	298,623	238,322	273,046	413,335
	10 mos.	1,258	15,151,664	4,212,606	20,774,187	3,584,653	4,971,548	724,916	7,903,772	613,599	17,828,351	85.80	2,945,836	2,341,641	2,721,291	2,306,612
Navada Northern	Oct.	165	100,681	9,706	118,991	13,329	11,438	1,252	17,856	5,255	49,130	41.30	69,861	60,045	59,676	40,617
	10 mos.	165	685,647	93,605	836,015	118,802	61,892	6,271	147,817	37,630	372,412	44.50	463,603	394,350	402,658	158,358
Newburgh & South Shore	Oct.	7	.....	.....	184,270	17,643	46,100	.....	69,792	4,004	138,718	75.30	45,552	32,453	25,048	12,386
	10 mos.	7	.....	.....	1,766,127	173,796	512,417	.....	727,397	41,467	1,464,142	82.90	301,985	173,332	110,679	250,006
New Orleans Great Northern	Oct.	274	210,800	33,307	252,542	32,831	46,139	5,797	79,168	10,318	174,790	69.20	77,752	60,350	56,207	74,050
	10 mos.	274	1,963,893	345,183	2,397,983	317,043	405,100	57,933	730,199	105,924	1,620,991	67.60	776,992	608,107	599,590	484,006
New York Central	Oct.	6,899	23,564,782	7,812,051	35,633,038	5,594,157	10,986,467	378,412	12,519,998	925,370	30,816,188	86.50	4,816,850	3,509,664	3,524,906	5,185,745
	10 mos.	6,898	233,082,184	82,750,803	356,235,514	41,500,897	88,608,119	3,281,013	125,020,457	8,420,062	270,688,668	76.00	85,546,846	65,601,171	64,021,509	40,253,733
Cincinnati Northern	Oct.	244	444,215	10,492	463,301	63,390	77,907	4,612	150,638	8,502	305,049	65.80	158,252	137,008	85,614	50,805
	10 mos.	244	4,216,175	138,412	4,426,876	582,422	831,843	47,220	1,448,178	76,314	3,082,935	69.60	1,343,941	1,129,955	695,063	221,888
Cleve., Cincinnati, Chic. & St. L.	Oct.	2,407	6,052,722	1,428,577	8,174,133	1,077,517	2,071,520	106,251	2,885,732	193,256	6,300,895	78.20	1,783,238	1,327,221	1,248,297	1,028,727
	10 mos.	2,407	58,970,529	14,925,791	80,300,232	9,220,485	18,686,929	1,091,046	28,768,208	1,849,879	60,126,851	74.90	20,173,381	15,784,064	15,119,581	11,264,218
Indiana Harbor Belt	Oct.	119	.....	.....	1,101,119	101,437	122,240	5,124	443,476	23,120	695,397	63.20	405,722	358,739	196,816	230,344
	10 mos.	119	.....	.....	9,810,944	1,046,867	1,309,174	45,431	4,261,598	214,206	6,877,276	70.10	2,933,668	2,597,333	1,351,944	1,676,935
Michigan Central	Oct.	1,862	5,799,468	1,702,751	8,334,047	1,080,306	2,009,462	105,028	2,594,530	149,095	6,011,947	72.10	2,322,100	1,855,101	1,703,428	1,668,703
	10 mos.	1,862	54,383,833	18,049,838	80,111,139	9,170,309	16,185,518	987,650	26,417,116	1,475,051	54,979,520	68.60	25,131,619	20,255,356	18,188,513	14,152,000
Pittsburgh & Lake Erie	Oct.	234	3,247,275	275,357	3,638,593	644,755	992,092	19,082	980,272	68,093	2,705,663	74.30	933,530	724,236	1,048,244	1,315,503
	10 mos.	232	34,784,260	2,761,581	38,464,505	4,417,196	9,708,118	212,607	10,564,720	642,390	25,562,004	66.50	12,902,501	10,504,600	14,134,176	2,683,767
New York, Chicago & St. Louis	Oct.	1,696	4,782,303	179,330	5,152,899	766,777	1,338,086	117,483	1,809,315	157,370	4,190,898	81.30	962,001	692,649	552,284	836,980
	10 mos.	1,696	44,544,854	1,986,650	48,454,227	5,802,746	10,261,332	1,088,491	17,162,833	1,516,464	35,898,779	74.10	12,555,448	9,903,701	8,597,859	7,815,118
New York Connecting	Oct.	19	200,332	.....	276,440	27,895	14,143	.....	48,891	1,201	92,130	33.30	184,310	184,254	144,304	143,362
	10 mos.	19	1,823,320	.....	2,821,432	140,196	214,048	.....	493,801	11,297	859,342	30.50	1,962,090	1,596,622	1,322,519	921,993
New York, New Haven & Hartford	Oct.	2,000	6,076,653	4,324,617	11,655,012	1,787,051	2,929,597	62,927	4,301,815	293,773	9,550,798	81.90	2,104,214	1,695,767	1,384,463	1,121,631
	10 mos.	2,000	57,032,858	42,373,746	112,171,283	13,863,972	27,074,031	587,126	44,710,860	2,831,477	90,774,785	80.90	21,396,498	17,165,241	10,141,879	10,982,099
Central New England	Oct.	295	782,182	16,123	828,095	147,770	127,349	4,871	239,883	9,247	528,693	63.80	299,402	282,618	243,017	71,508
	10 mos.	295	6,202,670	166,179	6,624,687	1,130,956	1,358,915	46,513	2,372,369	104,655	5,010,198	75.60	1,614,389	1,383,049	853,930	622,888
New York, Ontario & Western	Oct.	569	832,127	98,989	1,096,755	171,238	275,000	14,521	497,888	32,382	992,159	90.40	104,596	87,657	86,869	—149,686
	10 mos.	569	7,237,041	2,797,991	11,812,900	1,720,349	2,675,000	152,817	5,439,576	323,465	10,320,900	87.40	1,492,000	1,115,900	803,619	690,349
Norfolk & Western	Oct.	2,238	7,291,550	825,958	8,451,941	1,314,143	2,324,323	85,419	2,808,004	158,936	6,709,619	79.40	1,744,322	1,192,265	1,426,777	—39,076
	10 mos.	2,238	67,400,774	8,492,954	79,117,122	10,771,581	20,973,689	826,413	26,802,047	1,546,710	61,076,365	77.20	18,040,757	12,882,651	15,787,109	18,152,418
Norfolk Southern	Oct.	931	734,722	117,460	898,135	105,817	168,720	24,402	320,535	31,547	651,704	72.60	246,431	207,577	174,644	131,468
	10 mos.	931	6,006,936	1,215,155	7,673,493	1,018,188	1,200,410	236,000	3,114,811	293,519	5,869,606	76.50	1,803,887	1,419,062	1,075,375	851,798
Northern Pacific	Oct.	6,669	8,904,175	1,180,483	10,899,249	1,114,501	1,769,417	164,097	3,510,467	232,550	6,879,756	63.10	4,019,493	3,271,904	3,420,524	2,182,746
	10 mos.	6,669	63,606,834	13,067,700	84,131,166	12,170,734	19,412,392	1,676,414	32,439,453	2,175,807	68,597,837	81.50	15,533,329	8,408,288	12,036,616	10,569,489
Northwestern Pacific	Oct.	496	511,439	201,745	776,769	117,824	140,314	6,184	261,314	18,745	544,435	70.10	232,334	187,018	176,906	214,461
	10 mos.	496	4,034,256	2,252,359	6,916,642	1,081,510	1,126,092	72,823	2,411,344	183,701	4,882,765	70.60	2,033,877	1,553,862	1,423,815	1,468,339
Pennsylvania	Oct.	10,484	44,835,604	12,787,195	63,160,989	9,316,605	17,338,466	640,867	24,535,581	1,465,357	54,102,857	85.70	9,058,132	5,743,032	3,452,384	4,211,520
	10 mos.	10,484	426,720,308	130,864,975	610,514,114	73,951,888	160,449,249	6,339,336	238,642,587	14,406,032	501,911,821	82.20	108,602,293	80,327,983	68,266,370	61,374,858

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1923—CONTINUED

Name of road.		Average mileage operated during period.	Operating revenues: Freight.	Passenger.	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures.	Maintenance of Equipment.	Traffic.	Transportation.	General.	Total.	Operating ratio.	Net from railway operation.	Operating income (or loss).	Net after rentals.	Net after rentals 1922.
Baltimore, Chesapeake & Atlantic	Oct.	87	$112,116	$33,638	$153,278	$14,189	$30,327	$1,633	$88,847	$3,510	$138,506	90.40	$14,772	$14,772	$11,847	—$8,720
	10 mos.	87	898,748	399,653	1,353,351	146,399	377,789	18,345	819,544	39,017	1,401,094	103.50	—47,743	—95,689	—95,804	—25,006
Long Island	Oct.	397	959,126	1,586,374	2,788,401	456,266	544,408	28,066	1,240,986	70,197	2,355,242	84.50	433,159	287,858	91,276	175,076
	10 mos.	397	8,785,411	17,778,434	28,974,420	3,479,168	4,758,118	222,877	12,214,782	644,793	21,472,960	74.10	7,501,460	5,952,057	3,693,673	4,594,681
Maryland, Delaware & Virginia	Oct.	52	75,395	24,530	102,821	9,519	18,722	1,028	73,156	1,998	104,423	101.60	—1,602	—1,602	—92	—17,735
	10 mos.	72	626,523	293,885	952,182	80,747	257,672	13,623	657,028	23,483	1,032,553	108.40	—80,371	—100,628	—112,825	—85,249
West Jersey & Seashore	Oct.	359	441,759	494,206	1,028,323	225,347	264,247	20,365	536,030	32,800	1,090,643	106.10	—62,320	—76,711	—113,128	87,228
	10 mos.	359	4,270,909	7,249,626	12,448,014	2,068,366	2,264,983	176,492	5,364,163	283,461	10,282,191	82.60	2,165,823	1,303,617	1,051,869	1,167,960
Peoria & Pekin Union	Oct.	19	32,881	2,589	172,235	34,356	19,926	1,579	71,503	8,710	136,074	79.00	36,161	21,161	39,871	53,471
	10 mos.	19	234,706	26,600	1,474,887	280,984	158,078	6,376	634,238	89,106	1,168,782	79.20	306,105	186,105	435,385	478,426
Pere Marquette	Oct.	2,262	3,666,799	374,843	4,419,562	565,418	919,933	52,866	1,570,662	115,181	3,202,252	72.50	1,217,310	1,053,685	855,238	756,388
	10 mos.	2,233	30,372,328	4,531,498	38,459,156	4,944,849	8,308,283	502,150	14,502,506	1,078,277	29,290,883	76.20	9,168,273	7,675,344	5,832,184	5,367,016
Philadelphia & Reading	Oct.	1,125	7,413,133	925,429	8,785,967	1,038,585	2,499,354	90,469	3,119,627	153,846	6,916,074	78.70	1,869,893	1,399,377	1,257,389	3,288,631
	10 mos.	1,125	75,850,310	8,864,624	89,217,776	8,430,978	19,608,574	816,665	31,818,070	1,502,731	62,317,666	69.80	26,900,110	23,633,468	21,691,937	10,029,907
Atlantic City	Oct.	170	132,791	163,294	315,656	113,542	37,047	5,940	214,451	4,115	375,232	118.90	—59,576	—79,579	—120,467	—138,109
	10 mos.	170	1,272,173	2,878,906	4,314,372	724,809	423,616	63,283	2,235,924	48,099	3,495,672	81.00	818,700	618,236	217,337	78,646
Perkiomen	Oct.	41	87,990	5,916	97,102	6,082	6,146	107	51,167	771	64,322	66.20	32,780	27,980	22,471	56,676
	10 mos.	41	827,179	74,418	937,886	78,713	44,735	1,081	442,804	8,207	575,875	61.40	362,011	307,528	255,758	403,909
Port Reading	Oct.	21	167,338	.....	211,634	30,914	10,045	229	74,203	2,775	118,166	55.80	93,468	76,042	18,668	10,179
	10 mos.	21	1,763,006	.....	2,277,536	206,627	157,633	2,290	837,031	21,820	1,225,392	53.80	1,052,144	878,039	295,449	—3,110
Pittsburgh & Shawmut	Oct.	102	71,142	3,044	76,649	18,617	53,263	3,091	30,628	16,078	121,677	158.70	—45,028	—53,157	—21,024	13,748
	10 mos.	102	1,025,794	44,750	1,099,921	214,904	486,106	17,120	402,282	80,292	1,200,704	109.20	—100,783	—117,783	244,986	17,914
Pittsburgh & West Virginia	Oct.	89	332,331	9,079	372,466	74,407	111,420	6,226	91,693	26,331	319,576	85.80	52,890	15,537	74,002	64,341
	10 mos.	89	2,774,838	93,002	3,186,815	432,172	966,236	36,823	843,282	157,644	2,527,789	79.30	659,026	259,526	1,088,872	631,629
Pittsburgh, Shawmut & Northern	Oct.	210	91,777	4,257	99,447	38,207	46,186	2,119	48,424	6,468	141,404	142.20	—41,957	—45,734	—37,637	29,894
	10 mos.	210	1,082,290	62,084	1,176,996	322,053	412,771	17,567	518,181	64,369	1,334,941	113.40	—157,945	—183,376	—23,418	—172,485
Quincy, Omaha & Kansas City	Oct.	250	73,510	23,829	107,081	32,119	16,626	743	44,297	2,447	96,245	89.90	10,836	6,833	1,140	1,935
	10 mos.	250	740,303	223,273	1,051,129	386,563	212,462	8,452	517,003	23,649	1,146,141	109.00	—95,012	—138,288	—197,299	—95,916
Richm'd, Fredericksburg & Potomac	Oct.	117	435,453	314,417	909,417	133,311	165,850	8,477	313,446	30,246	665,796	73.20	243,621	196,719	163,266	231,021
	10 mos.	117	5,027,019	3,511,861	10,120,028	1,018,943	1,484,474	84,616	3,508,200	299,913	6,587,637	65.00	3,532,391	2,959,537	2,407,390	2,104,330
Rutland	Oct.	413	337,304	116,163	561,164	113,461	116,692	8,757	224,363	13,087	478,033	85.20	83,131	67,542	66,152	54,256
	10 mos.	413	3,290,944	1,298,565	5,689,207	1,042,116	1,048,775	88,097	2,419,648	126,709	4,741,840	83.30	947,367	710,490	773,104	406,041
St. Louis-San Francisco	Oct.	4,751	5,486,845	1,703,405	7,725,803	1,348,291	1,640,240	92,328	2,600,727	204,927	5,841,283	75.60	1,884,520	1,441,789	1,445,705	1,045,349
	10 mos.	4,751	49,955,127	16,525,171	71,633,977	9,584,249	14,763,468	939,106	25,699,887	1,945,116	52,531,312	73.30	19,102,665	15,651,740	15,232,299	12,470,490
Ft. Worth & Rio Grande	Oct.	235	109,939	32,548	153,548	24,967	28,145	4,104	62,501	6,000	125,717	81.90	27,831	24,126	15,416	—8,089
	10 mos.	235	888,781	271,577	1,255,744	295,492	254,287	33,422	580,665	58,432	1,213,306	96.60	42,438	3,400	—82,422	—237,971
St. Louis, San Francisco & Texas	Oct.	134	149,153	18,546	173,433	28,813	27,242	5,249	56,986	7,411	125,673	72.50	47,760	45,701	23,153	13,677
	10 mos.	134	1,196,662	143,936	1,395,466	295,159	234,529	40,958	544,781	74,095	1,188,789	85.20	*206,677	184,775	—24,698	—35,594
St. Louis Southwestern	Oct.	968	1,696,165	175,716	1,956,335	285,359	339,404	54,463	463,944	55,229	1,211,361	61.90	744,974	588,864	570,203	534,890
	10 mos.	968	14,806,862	1,632,603	17,256,421	2,010,342	3,242,562	446,159	4,362,863	529,038	10,690,653	62.00	6,565,768	5,537,915	5,098,672	4,385,871
St. Louis Southwestern of Texas	Oct.	807	839,116	139,739	1,034,546	167,782	249,512	21,527	304,865	34,827	782,533	75.60	252,013	221,646	232,398	—58,133
	10 mos.	807	5,506,788	1,102,494	7,077,610	1,406,048	2,436,117	205,174	3,149,421	317,592	7,522,774	106.30	—445,164	—720,505	—569,046	—949,154
San Antonio & Aransas Pass	Oct.	739	645,483	91,099	775,695	94,916	135,330	11,805	218,861	22,036	481,141	62.00	294,554	277,820	272,608	144,817
	10 mos.	739	4,153,575	761,605	5,250,719	959,801	1,304,010	109,719	1,932,784	228,835	4,520,813	87.66	729,906	573,775	595,352	199,075
San Antonio, Uvalde & Gulf	Oct.	317	73,009	19,521	101,895	12,893	11,291	5,445	37,978	8,044	75,651	74.20	26,244	22,098	12,643	894
	10 mos.	317	756,805	191,076	1,035,674	148,944	135,027	39,128	401,267	89,808	813,627	78.60	222,047	188,075	97,941	46,276
Seaboard	Oct.	3,576	3,257,175	784,714	4,529,107	682,362	791,687	131,730	1,650,738	183,640	3,468,552	76.60	1,060,555	884,731	775,809	500,918
	10 mos.	3,576	30,043,430	8,372,830	42,820,612	5,510,754	7,508,967	1,346,630	16,901,421	1,685,587	33,304,726	77.80	9,515,886	7,759,183	6,218,119	3,225,099
Southern	Oct.	6,971	9,801,269	2,650,014	13,477,484	1,912,975	2,791,823	261,846	4,633,246	343,706	10,026,727	74.40	3,450,757	2,783,191	2,615,772	2,711,990
	10 mos.	6,971	88,221,976	27,924,285	125,305,115	17,496,522	24,541,510	2,373,077	45,824,974	3,216,766	94,317,258	75.30	30,987,857	25,084,946	22,650,482	15,513,954
Alabama Great Southern	Oct.	318	723,252	169,528	954,237	130,026	242,082	23,303	295,414	28,288	725,757	76.10	228,480	169,904	185,275	201,405
	10 mos.	318	6,761,849	1,782,096	9,054,512	1,091,120	1,824,980	212,963	2,945,535	245,166	6,380,441	70.50	2,674,071	2,150,343	2,140,600	952,833
Cincin., New Orleans & Tex. Pac.	Oct.	338	1,420,937	344,047	1,879,671	292,403	425,003	41,311	564,608	50,223	1,384,287	73.60	495,384	433,239	389,605	218,693
	10 mos.	338	14,708,459	3,685,466	19,296,363	2,598,431	4,350,209	366,691	5,943,052	461,247	13,827,269	71.70	5,469,094	4,583,194	4,023,028	1,223,147
Georgia, Southern & Florida	Oct.	402	309,915	111,693	461,507	82,390	85,292	10,294	166,453	12,639	359,220	77.80	102,287	82,866	68,490	41,967
	10 mos.	402	2,884,723	1,129,718	4,376,362	720,100	746,752	88,940	1,741,827	116,121	3,440,222	78.60	936,140	737,722	446,830	258,353
New Orleans & Northeastern	Oct.	207	432,421	83,764	575,044	90,865	138,066	18,580	227,209	18,856	497,687	86.50	77,357	33,453	20,956	53,592
	10 mos.	207	4,310,306	875,268	5,777,374	818,062	1,183,485	116,877	2,108,122	156,991	4,422,369	76.50	1,355,005	853,608	767,289	—156,318
Northern Alabama	Oct.	110	147,684	13,023	164,344	34,583	6,405	2,527	45,788	5,207	94,510	57.50	69,834	63,813	23,646	36,359
	10 mos.	110	1,285,402	133,673	1,450,050	234,238	68,337	22,252	495,342	35,428	855,597	59.00	594,453	529,260	275,875	121,845

REVENUES AND EXPENSES OF RAILWAYS

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1923—CONTINUED

Name of road.		Average mileage operated during period.	Operating revenues			Operating expenses						Operating ratio.	Net from railway operation.	Operating income (or loss).	Net after rentals.	Net after rentals 1922.
			Freight.	Passenger.	Total (inc. misc.)	Maintenance of—Way and structures.	Maintenance of—Equipment.	Traffic.	Transportation.	General.	Total.					
Southern Pacific	Oct.	7,135	$14,625,448	$4,069,280	$20,611,577	$2,348,933	$2,636,869	$264,698	$5,924,928	$455,111	$11,920,709	57.80	$8,690,868	$7,390,259	$6,892,933	$6,046,614
	10 mos.	7,123	114,175,891	39,145,568	169,918,421	22,584,267	28,341,058	2,726,478	53,820,566	4,625,251	114,875,152	67.60	55,043,269	42,010,236	38,860,519	31,813,524
Arizona Eastern	Oct.	382	305,231	28,621	349,712	53,996	49,138	3,820	90,500	19,867	218,516	62.50	131,196	82,284	74,015	68,854
	10 mos.	382	2,624,491	287,764	3,069,216	417,176	476,512	31,518	792,149	188,060	1,917,072	62.50	1,152,144	884,159	806,105	584,486
Atlantic Steamship Lines	Oct.	.....	1,246,699	58,635	1,373,263	13,633	371,206	23,011	906,425	26,993	1,341,268	97.70	31,995	20,093	20,093	162,680
	10 mos.	.....	10,370,247	623,988	11,519,714	152,321	1,895,102	215,347	7,026,251	277,136	9,566,157	83.00	1,953,557	1,834,645	1,834,255	1,429,620
Galveston, Harrisb. & San Antonio	Oct.	1,379	1,814,448	415,902	2,378,728	329,530	619,946	45,284	854,441	67,128	1,924,139	80.90	454,589	388,637	282,681	384,043
	10 mos.	1,379	14,077,775	4,197,595	19,445,388	3,794,546	4,130,180	428,185	7,467,533	698,384	16,546,244	85.10	2,899,144	2,240,146	1,766,134	1,922,451
Houston & Texas Central	Oct.	923	1,196,333	311,536	1,602,913	198,323	196,271	26,733	450,309	44,176	912,352	56.90	690,561	653,140	595,191	399,520
	10 mos.	923	8,473,695	2,692,037	11,911,095	2,397,131	2,390,483	256,440	4,154,087	455,728	9,634,660	80.90	2,276,435	1,806,205	1,389,723	2,040,281
Houston East & West Texas	Oct.	191	303,430	43,413	361,645	74,135	40,054	4,092	122,732	8,701	249,507	69.00	112,138	98,843	80,196	56,054
	10 mos.	191	2,011,081	448,491	2,593,097	592,799	563,025	37,604	951,567	87,902	2,229,319	86.00	363,778	264,050	134,856	226,255
Louisiana Western	Oct.	207	333,254	89,856	453,429	76,261	78,482	11,239	124,751	16,986	311,697	68.70	141,732	105,509	98,875	98,732
	10 mos.	207	2,654,756	910,339	3,821,253	638,942	726,503	101,373	1,122,861	168,429	2,796,981	73.20	1,024,272	721,935	725,102	612,410
Morgan's L. & T. R. R. & S. S. Co.	Oct.	400	627,647	156,710	842,582	109,066	226,207	16,817	316,122	32,308	701,841	83.30	140,741	78,566	57,622	18,330
	10 mos.	400	5,193,888	1,564,693	7,304,441	1,582,336	1,641,062	165,155	2,887,678	310,385	6,605,162	90.40	699,279	219,813	—4,748	—158,003
Texas & New Orleans	Oct.	507	615,958	183,345	860,123	284,284	239,338	13,636	240,673	24,673	808,387	94.00	57,736	19,916	—20,094	35,832
	10 mos.	507	5,270,039	1,660,076	7,431,107	1,974,232	1,787,287	128,905	2,745,976	253,227	6,928,416	93.20	502,691	183,850	—41,696	114,511
Spokane International	Oct.	165	80,348	19,966	107,902	23,910	8,249	3,626	37,297	6,251	79,978	74.10	27,924	22,021	16,109	31,687
	10 mos.	165	753,127	175,047	985,506	172,447	106,238	32,699	364,481	58,495	742,386	75.30	243,120	184,639	111,173	183,511
Spokane, Portland & Seattle	Oct.	554	667,986	138,358	881,349	107,061	135,065	8,749	256,030	18,184	534,072	60.60	347,277	272,254	188,659	177,852
	10 mos.	554	4,760,785	1,439,938	6,827,846	874,216	1,180,064	100,500	2,078,704	177,643	4,578,954	66.20	2,308,892	1,557,980	1,285,104	1,226,746
Tennessee Central	Oct.	287	218,525	44,974	279,944	62,800	45,844	6,971	102,627	9,949	228,123	81.50	51,821	46,760	28,364	19,330
	10 mos.	287	1,999,963	459,203	2,597,482	464,630	440,754	62,281	983,294	97,573	2,047,841	78.80	549,641	489,122	307,950	69,838
Term. R. R. Association of St. L.	Oct.	37	.....	.....	443,347	127,403	46,998	963	162,678	8,924	350,386	79.00	92,961	30,786	147,194	169,094
	10 mos.	37	.....	.....	4,279,860	939,973	412,385	9,954	1,443,974	89,377	2,390,856	68.50	1,349,004	712,840	1,850,009	1,694,880
East St. Louis Connecting	Oct.	1	.....	.....	215,574	12,901	8,694	276	69,517	2,824	94,212	43.70	121,362	107,668	88,825	94,224
	10 mos.	1	.....	.....	2,013,773	131,606	78,726	2,846	648,369	26,174	887,721	44.10	1,126,052	988,758	787,793	703,611
St. L. Merchants' Bridge Term.	Oct.	9	.....	.....	407,373	54,751	30,461	890	196,853	7,428	290,383	71.30	116,990	87,933	78,347	205,392
	10 mos.	9	.....	.....	4,083,627	496,440	293,232	9,168	1,895,231	69,147	2,763,218	67.70	1,320,409	1,014,435	952,237	1,033,694
St. Louis Transfer Ry	Oct.	6	.....	.....	76,252	7,622	5,388	160	41,170	1,175	55,515	72.80	20,737	20,247	15,287	6,875
	10 mos.	6	.....	.....	730,566	54,002	49,193	1,654	380,001	13,400	498,250	68.20	232,316	228,000	166,315	29,575
Texas & Pacific	Oct.	1,952	2,394,822	719,954	3,372,802	452,995	518,581	56,620	1,015,464	86,842	2,138,550	63.40	1,234,252	1,068,120	1,038,903	370,690
	10 mos.	1,952	18,083,763	6,097,156	26,236,572	3,771,554	6,132,117	515,085	9,434,672	885,891	20,880,211	79.60	5,356,361	4,273,074	3,558,098	2,685,601
Toledo, Peoria & Western	Oct.	247	106,476	41,831	165,399	29,142	54,692	2,413	78,458	7,067	171,690	103.80	—6,291	—17,291	—26,069	—11,112
	10 mos.	247	994,300	412,702	1,552,321	286,918	503,591	24,891	772,280	74,967	1,662,125	107.10	—109,804	—221,029	—223,390	—158,541
Trinity & Brazos Valley	Oct.	368	450,611	24,188	484,940	58,462	87,473	3,058	121,219	13,126	283,331	58.40	201,609	194,106	152,032	40,397
	10 mos.	368	2,237,485	186,472	2,491,172	388,368	462,108	31,958	822,521	121,418	1,820,646	73.10	670,526	598,912	341,856	—63,923
Ulster & Delaware	Oct.	128	89,397	12,783	132,943	25,357	27,760	1,594	73,725	8,005	136,441	102.60	—3,498	—9,499	—17,095	—30,350
	10 mos.	128	764,562	415,210	15,413,397	211,142	239,170	29,580	736,759	79,836	1,297,430	84.20	243,967	183,934	116,423	8,522
Union R. R. of Penna.	Oct.	45	.....	.....	1,158,514	84,053	310,359	196	505,787	7,934	908,329	78.40	250,185	250,185	346,136	451,683
	10 mos.	45	.....	.....	10,763,692	689,138	2,143,239	1,785	4,835,426	77,141	8,016,673	74.50	2,747,019	2,252,899	3,171,132	3,530,371
Union Pacific	Oct.	3,708	11,069,355	1,699,289	13,815,637	1,422,339	2,303,896	130,118	3,482,864	290,046	7,856,615	56.90	5,959,022	5,354,217	4,673,851	3,822,503
	10 mos.	3,708	73,536,977	15,365,362	97,622,661	12,470,909	20,389,450	1,438,155	27,367,104	2,729,394	66,329,639	67.90	31,293,022	25,598,126	23,513,565	20,862,678
Oregon Short Line	Oct.	2,366	3,724,319	467,691	4,462,256	610,528	664,500	41,731	1,287,385	126,088	2,791,386	62.60	1,670,870	1,340,212	1,157,309	1,240,733
	10 mos.	2,366	24,864,853	4,702,448	31,857,186	5,425,357	6,121,935	444,673	10,019,638	1,104,649	23,753,986	74.60	8,103,200	5,472,644	4,665,876	4,593,541
Oregon Wash. R. R. & Nav. Co.	Oct.	2,232	2,782,693	448,916	3,481,500	666,705	442,378	58,453	1,149,202	130,929	2,481,101	71.30	1,000,399	821,901	647,066	111,463
	10 mos.	2,237	18,024,302	4,772,254	24,859,488	5,153,986	4,386,987	673,632	10,127,469	1,188,854	21,733,399	87.40	3,126,089	1,400,617	339,426	—1,232,771
St. Joseph & Grand Island	Oct.	258	298,707	25,407	347,306	48,963	51,149	2,674	121,482	12,384	236,652	68.10	110,654	96,179	89,609	6,718
	10 mos.	258	2,277,044	251,891	2,717,139	502,742	533,666	25,286	1,145,872	121,694	2,330,866	85.80	386,273	253,139	118,500	49,094
Utah	Oct.	102	210,393	593	212,117	36,985	48,114	486	53,960	5,193	143,895	67.80	68,222	60,923	53,575	27,469
	10 mos.	102	1,331,607	5,977	1,347,229	273,590	379,411	3,709	365,012	52,134	1,070,729	79.50	276,500	208,630	142,163	205,224
Virginian	Oct.	540	1,517,743	79,896	1,730,427	177,778	492,649	12,072	458,980	38,037	1,177,809	68.10	552,618	432,120	453,239	248,805
	10 mos.	540	16,327,289	791,295	18,226,391	1,728,717	4,379,377	117,854	4,767,632	357,759	11,352,054	62.30	6,874,337	5,806,386	6,133,574	4,914,534
Wabash	Oct.	2,472	4,967,526	812,591	6,189,382	993,669	1,184,378	135,254	2,222,183	163,860	4,719,298	76.20	1,470,084	1,278,120	991,969	238,548
	10 mos.	2,472	43,099,415	8,140,801	55,416,027	7,968,520	11,529,309	1,257,525	20,657,196	1,552,041	43,189,757	77.90	12,226,270	10,317,094	7,747,278	3,482,904
Western Maryland	Oct.	804	1,769,603	68,000	1,907,820	276,034	473,844	38,186	604,832	47,444	1,454,112	76.20	453,708	363,708	392,515	268,165
	10 mos.	804	17,862,633	818,848	19,589,208	2,392,985	5,162,130	369,200	6,665,826	448,719	15,202,833	77.60	4,386,375	3,561,375	3,872,756	2,540,851
Western Pacific	Oct.	1,043	1,388,813	250,641	1,819,487	248,385	197,070	38,286	527,019	35,233	1,135,906	62.40	683,581	602,000	585,093	490,420
	10 mos.	1,043	8,728,506	2,112,989	11,880,899	1,982,403	1,981,411	352,922	3,945,733	346,034	8,965,488	75.50	2,915,411	2,121,814	2,540,242	1,458,172
Wheeling & Lake Erie	Oct.	511	1,717,905	56,048	1,929,480	212,418	506,268	22,919	596,965	42,512	1,380,686	71.60	548,794	422,637	383,891	—170,566
	10 mos.	511	14,281,143	629,062	16,188,028	1,977,315	4,697,816	178,490	5,181,562	367,758	12,433,848	76.80	3,754,180	2,618,373	2,250,581	419,476

The Cost of the I. C. C.

An appropriation of $4,262,284 for the Interstate Commerce Commission for the fiscal year ending June 30, 1925, is recommended by the Bureau of the Budget in the report transmitted to Congress by President Coolidge on December 10. This compares with $5,203,860 appropriated for the year ending June 30, 1924. Explaining the reduction, the Budget Bureau said: "The principal differences between the appropriation for 1924 and the budget estimate for 1925 are a decrease from $2,298,077 to $2,148,000 in the general appropriation involving a reduction in personnel from 843 to 798, amounting to $102,378, and a reduction of $47,699 in other expenses; a decrease from $554,687 to $537,524 in the appropriation for enforcing compliance with requirements of law relative to reports and accounts of common carriers; a decrease from $404,747 to $375,000 in the appropriation to enforce compliance with acts to promote safety, etc.; a decrease from $304,979 to $290,000 in the appropriation for boiler inspection, etc.; a decrease from $1,347,092 to $647,260, in the appropriation for valuation.

For the Railroad Labor Board the Bureau estimates $322,200 for 1925 as compared with $340,000 for 1924.

Not at a Grade Crossing

In Philadelphia, very early on the morning of November 29, six persons, riding in an automobile on Pennsylvania Avenue, were killed when their car was driven against the iron railing at the end of the street, where the tracks of the Philadelphia & Reading Railway emerge from the "tunnel" beneath the street, and fell about 35 ft. to the tracks below; and the wreck, with its victims, was struck by a westbound milk train within a few minutes after it lodged on the track. A policeman saw the car plunge over the wall, which forms the end of the tunnel, and hastened to telephone to a railroad office with the hope of stopping the train, but he was too late. The occupants of the automobile, four men and two women, were on their way home from a dance, and witnesses say that they were traveling at very high speed.

According to the Philadelphia Public Ledger, the owner of the car, James McGee, a foreman in the Baldwin Locomotive Works, who was driving it, had been called to account by a policeman for excessive speed, only four days before, when he was driving in Girard Avenue at 40 miles an hour. "McGee pleaded so hard," said the police officer, "that I finally let him off. I am sorry now that I did not arrest him, for if I had, all those six victims would be alive today."

Apprenticeships for the Construction Industry

A national program on apprenticeships for the construction industry was launched today by the Apprenticeship Committee of the American Construction Council at the first meeting of the committee, held at Buffalo, December 5, 1923. This committee is composed of representatives of all elements of the construction industry throughout the entire country, including employers, manufacturers and professional bodies, as well as the various trades and crafts representing labor in the industry. Forty persons representing all of these groups, were in attendance. The purpose of the committee recently created by the American Construction Council, is to further the development of apprenticeship in the construction industry.

John Donlin, president, Building Trades Department of the American Federation of Labor, proposed a nationwide survey of apprenticeship needs in the construction industry, and pledged the co-operation of labor in training a sufficient number of apprentices to meet these needs.

A national survey of apprenticeship needs, and distribution of labor in the construction industry was authorized and instructed to be carried out as the first essential step in the program. Also an exhaustive study of instructional facilities and standards for apprentice training throughout the country in the construction crafts was specially provided for. Arrangements were also made to set in motion machinery for handling the additional phases of the problem such as development of craftsmanship, providing employment for apprentices, and the like.

To carry forward its program the committee directed, by resolution, the appointment of four sub-committees: first, a general executive committee; second, a committee on survey of apprenticeship needs and distribution of labor; third, a committee on instructional facilities and standards, and fourth, a committee on finance.

Traffic News

A Correction

The Atchison, Topeka & Santa Fe reported in the *Railway Age* of December 1, page 1030, as reducing fares for the holidays, will make holiday rates between local points in the Southwest and the Pacific coast territory, the sales days for local points west of Albuquerque being December 22 to 25 and December 29 to January 1 and for local points in Texas and Louisiana December 20 to 24, instead of as previously announced.

Grain Rate Investigation Held at Spokane

The third hearing before the Interstate Commerce Commission in response to a petition for reductions in freight rates on grain and hay of which the first hearing was held at Kansas City on November 14 and the second in Minneapolis on November 26 was held at Spokane on December 5. The commission was represented by Examiners E. L. Beach and H. C. Keene. The Northwest Wheat Growers' Association was represented by Walter J. Robinson, manager at Spokane and H. P. Christensen, traffic manager at Portland. The State Department of Public Works was represented by Attorney-General Raymond Clifford. W. A. Robbins, counsel for the Oregon-Washington Railroad & Navigation Company, J. E. Davis, assistant general freight agent of the Oregon-Washington Railroad & Navigation Company and R. J. Hagman, counsel for the Great Northern represented the railroads. Edward O. Howard, a Salt Lake City banker, vice-president of the Utah Agricultural College, testified that farmers of Utah and Southeastern Idaho who had taken up diversified farming are getting along pretty well. He said that dairy farming was very profitable. Others testifying for the railroads were E. E. Flood, vice-president of the Exchange National Bank and C. L. Smith, agricultural agent for the Union Pacific. Those testifying for the states were Frederick Steimer, representing the Umatilla County Farm Bureau, Oregon; J. K. McCormack, president of the Union Securities Company, Spokane, and L. A. Hunt, representing the Northwest Hay Association of Yakima, Wash.

Ton Miles Still Ahead of Previous Years

The railroads of the United States during the first ten months this year handled 386,027,840,000 net ton miles of freight, an increase of two and two-fifths per cent over the corresponding period in 1920, which marked the previous high record, according to a compilation by the Bureau of Railway Economics. Compared with the first ten months last year, the total was an increase of 84,495,486,000 or 28 per cent. In making this comparison, however, consideration must be given to the fact that freight traffic last year was affected by the strikes of both the miners and the railway shopmen.

In the Eastern district, freight traffic during the first ten months this year showed an increase of approximately 35 per cent over the corresponding period last year, in the Southern district, an increase of nearly 25 per cent was reported, and the Western district, an increase of nearly 20 per cent.

For the month of October this year alone, however, the freight business of the railroads amounted to 42,209,395,000 net ton miles, which has been exceeded in two previous months, in August, 1920, when it amounted to 42,734,000,000, and again in October, 1920, when it was 42,570,000,000. Compared with October last year, there was an increase of 2,922,541,000 or more than seven per cent.

In the Eastern district freight traffic in October showed an increase of more than 8 per cent over the same month last year, while the Southern district reported an increase of 5½ per cent. In the Western district the increase amounted to more than 7 per cent.

October this year was the eighth month in history in which freight traffic on the railroads has exceeded 40,000,000,000 net ton miles. This mark was attained once in 1918, again in 1919, and four times in 1920. It was not reached in 1921 or 1922, but so far has been reached twice in 1923.

Commission and Court News

Interstate Commerce Commission

The Commission has announced a hearing in connection with its investigation of the construction and repair of equipment, in so far as it pertains to the Erie Railroad, at Washington on January 10, before Examiner Barclay.

Hearings in the commission's investigation of anthracite coal rates were resumed at Washington on December 3 before Chief Examiner Butler. The scope of the investigation has been broadened to include bituminous coal also, because of testimony received by the commission at hearings in New England to the effect that the consumers of that region would be inclined to the use of substitutes for anthracite coal if additional joint rates and through routes could be afforded for the shipment of Pennsylvania low volatile bituminous coal. It was alleged that in many instances this movement is now prevented by the fact that only combinations of rates are applicable on such shipments and that water transportation is not adapted to the shipment of prepared sizes of bituminous.

The commission has issued a decision finding justified tariffs filed by the transcontinental lines proposing to cancel the application of joint rates via Chicago and other Illinois junction points on numerous commodities, including fresh fruits and vegetables, from California and intermediate points in Arizona, New Mexico and Nevada and a few points on branch lines in Oregon, to destinations in southeastern territory. The tariffs were to become effective on December 14, but were suspended by the commission until January 12, 1924. The commission has now vacated its order of suspension. The elimination of these through routes was attempted on the part of the lines to do away with extremely circuitous routes and back hauls. The commission says that the through route via Chicago has been used to a very small extent and is circuitous and that the evidence does not show that its elimination will seriously affect either the shippers or the consumers.

Personnel of Commissions

Appointments to I. C. C. and Labor Board

President Coolidge on December 10 sent to the Senate the nominations of Frank McManamy and Mark W. Potter for reappointment to the Interstate Commerce Commission for terms of seven years from January 1, 1924, and of Horace Baker and E. F. Grable as members of the Railroad Labor Board. Edwin P. Morrow, Governor of Kentucky, was also appointed a member of the public group of the Labor Board, succeeding R. M. Barton. Mr. Baker was reappointed as a member of the management group and Mr. Grable as a member of the labor group. Their terms are five years. Mr. McManamy has been serving under a recess appointment to succeed W. M. Daniels, whose term would have expired at the end of the year. Mr. Potter's term also expires at the end of the year. Edwin P. Morrow, the new member of the Labor Board, was born at Somerset, Ky., on November 28, 1878. He was educated at St. Mary's College, St. Mary, Ky., at the Williamsburg (Ky.) Institute and at Cincinnati Law School, from which latter institution he received the degree of LL.B. in 1900. He immediately began the practice of law at Somerset. From 1911 to 1915 he served as United States district attorney for eastern Kentucky and in 1919 was elected governor of the state. His term as governor will expire shortly.

E. P. Morrow

Court News

Instructions Insinuating That Congress is in Collusion with Railroads Held Prejudicial Error

The South Carolina Supreme Court holds, in an action against a railroad in which a question of interstate journey was involved, that instructions from which the jury might infer that the railroads and Congress are in collusion to protect the railroads from the consequences of their unlawful invasions of the rights of the traveling public, are prejudicial error requiring reversal.—Mishoe v. Atlantic Coast Line (S. Car.), 117 S. E. 217.

Filing Claim Against Assignee of Consignee Does Not Waive Right to Collect for Consignor

A carrier which delivered an interstate shipment to the assignee of the consignee without requiring payment of freight as directed by bill of lading, and recovered more than half the charges from the assignee's trustee in bankruptcy, does not by filing the claim in bankruptcy waive its right to collect the balance of the charges from the consignor.—Cleveland, C. C. & St. L. v. Southern Coal & Coke Co. (Tenn.), 248 S. W. 297.

Injury from Discharge of Pistol in Trunk

The Texas Court of Civil Appeals holds that a railroad is not chargeable with knowledge of the contents of trunks or other packages offered to it for transportation as baggage. The railroad was therefore not liable for the death of an employee from the discharge of a pistol in a trunk which he was unloading from a truck to the baggage room floor, the injury being one which could not have been reasonably anticipated.—Agent v. Houston Belt & Terminal (Tex. Civ. App.), 247 S. W. 647.

Restriction of Liability for Losses Due to Strikes

The Arkansas Supreme Court holds that an interstate carrier may by fair and reasonable agreement restrict its liability for losses which are the proximate result of strikes on its own road, or that of its connecting carrier, where the loss is not caused by the negligence of the carrier, or the carrier could not by reasonable diligence have prevented the loss. This applies to a strike on any of the connecting roads, singly or together, including a terminal railroad company.—Jonesboro, Lake City & Eastern v. Maddy (Ark.), 248 S. W. 911.

Federal Ash Pan Act

The Texas Court of Civil Appeals hold that in the requirement in the federal Ash Pan Act of ash pans which can be dumped or cleaned without the necessity of the employee going under the locomotive, the words "go under" are to be used in their popular sense, and a violation is not proved by showing that in closing the pan the employee's body would be partially under the running board or the extension of the floor of the cab. Otherwise appliances would be required extending several feet beyond the rails, rendering them dangerous.—Fort Worth & D. C. v. Smithers (Tex. Civ. App.), 249 S. W. 286.

Advances by Consignee on Duplicate Bill of Lading

The South Carolina Supreme Court holds (by a court divided three to two) that where a railroad company by mistake gave a shipper two bills of lading for a single interstate shipment and the consignee advanced money on the duplicate bill of lading, the consignee can recover such advances from the railroad, and that it was error to charge the jury that if the cotton was not in fact shipped the railroad was not liable. There are cases to the contrary in other jurisdictions, but the federal courts have not yet construed the Uniform Bills of Lading Act, Section 22, on the subject.—Gleason v. Bamberg, Ehrhardt & Waterboro R. Co. (S. Car.), 117 S. E. 188.

Labor News

W. N. Doak, vice-president of the Brotherhood of Railroad Trainmen, has been appointed a member of the Research Council of the National Transportation Institute.

The Texas & Pacific has awarded voluntary wage increases to its clerical employees, the amounts varying according to grades, and averaging between one and two cents an hour. The increases, which will affect approximately 1,300 employees, will aggregate $65,000 a year.

Ballots for a strike vote have been distributed by the United Brotherhood of Maintenance of Way Employees to maintenance of way employees and shop laborers represented by it on Canadian roads. The strike has been threatened on account of the continued refusal of the railroads to put into effect the recent wage increase award of the Conciliation Board.

The strike of shopmen on the Delaware & Hudson, which began with the general shopcrafts strike on July 1, 1922, has been ended by vote of the shopmen. The striking employees voted to return under the offer made by the company that they apply for positions individually, and not through their union. It is said that 500 men have already applied; and that perhaps a third of these may get jobs before long.

The Chicago, Rock Island & Pacific has renewed its contract with the Brotherhood of Locomotive Engineers for a period of one year. The terms of the contract call for the same wages and rules that have been in effect during the past year. This action was taken following negotiations, at the brotherhood's request, for increases which would have restored the rates in effect prior to July 1, 1921. Action on similar requests by the Brotherhood of Railroad Trainmen, the Order of Railway Conductors and the Brotherhood of Locomotive Firemen and Enginemen has not been taken. The agreement between the Rock Island and its enginemen is the first which has been negotiated since the expiration of the train service and the engine service agreements this fall. On many roads negotiations have been dropped without agreements having been reached, but it is probable that on such roads the questions at issue will shortly be brought before the Railroad Labor Board for arbitration.

Dispatchers' Wage Dispute Remanded

The wage increase request of the American Train Dispatchers' Association for members of its organization on a number of roads has been remanded to the parties involved in the dispute by the Railroad Labor Board, with the order than any agreements arrived at shall be made effective December 1, 1923.

Wages of Sleeping Car Conductors

The Railroad Labor Board has established new rates of wages for sleeping car conductors as follows:

	Per Month Dollars	Per Hour Cents
First year	$150	62.5
Second year	160	66.5
Two to five years	167.50	69.5
Five to ten years	175	73
Ten to fifteen years	180	75
Over fifteen years	180	79

Brotherhood Appeals Court Order

The Supreme Court of Colorado has granted a writ of supersedeas, pending decision on the appeal of the Order of Railway Conductors against a judgment of $50,000 damages obtained against it by one of its former members. The complainant, in the hearing before the District Court, was awarded $30,000 actual and $20,000 exemplary damages against the brotherhood for its actions in preventing his holding positions on railroads since September 15, 1909. This verdict was rendered on May 18, 1923. The Supreme Court ordered the labor organization to post a $75,000 bond, pending decision on the appeal, and dissolved the injunction against it which prevented it from interfering in any way with the complainant's future employment.

More Telegraphers Ask Wage Increases

The Labor Board began on December 10 the hearing of the requests for wage increases presented by the Order of Railroad Telegraphers for operators on the Texas & Pacific, the Charleston & Western Carolina, the International-Great Northern, the Southern Pacific in Texas and Louisiana, the Virginian and the Nashville, Chattanooga & St. Louis. The increases asked are similar to those sought this year by the telegraphers on other roads. In a recent decision on a petition of telegraphers for wage increases, the Labor Board denied increases on a number of roads and ordered advances in wages of from two to five cents an hour on others.

Dispatchers' Wage Dispute Remanded

The wage increase request of the American Train Dispatchers' Association for members of its organization on 21 roads has been remanded to the parties involved in the dispute by the Railroad Labor Board, with the order than any agreements arrived at shall be made effective December 1, 1923. In explaining its decision, which brought forth angry comments from officers of the labor organizations, the decision of the board said, "Such increases as may be justifiable are matters of readjustment based upon local conditions on a given carrier. The evidence before the board is not of such a detailed nature as to enable the board intelligently to differentiate between the carriers where such a readjustment is desirable and the carriers where it is not desirable and to effectuate readjustments where necessary. There is also evidence to indicate that a proper effort has not been made on some of the roads to reach an agreement." The roads involved in the case were the Baltimore & Ohio; the Chicago Great Western; the Chicago & North Western; the Chicago, St. Paul, Minneapolis & Omaha; the Chicago, Rock Island & Pacific; the Chicago, Indianapolis & Louisville; the Denver & Rio Grande Western; the Erie; the Great Northern; the Louisville & Nashville; the Los Angeles & Salt Lake; the Mobile & Ohio; the Maine Central; the Missouri Pacific; the Minnesota & International; the Northern Pacific; the Southern Pacific; the Southern; the Texas & Pacific and the Wabash.

Labor Board Decisions

Restoration of Punitive Overtime Rates

The Labor Board has ordered that train and engine service employees of the Huntingdon & Broad Top Mountain were not included in decision No. 119 by interpretation No. 2 thereto, and that the road was without authority in eliminating time and one-half for overtime work. The restoration of the punitive rate of pay for overtime retroactive to August 1, 1921, the date on which the change was made was ordered.—*Decision No.* 2047.

Overtime Rates Apply Before Regular Starting Time

The Labor Board has held, in the case of two signal department employees who had been called for work several hours prior to their regular starting time and who had worked straight through to their usual quitting time, that service performed immediately preceding an employee's regular assignment shall be paid at overtime rates from the time the employee is called until the regular starting time, since that work is not considered as continuous with the regular assignment.—*Decision* 2012.

Union Representative Entitled to Copy of Seniority Roster

In a dispute between the Brotherhood of Railway and Steamship Clerks and the Southern Pacific over a request of the employees that the road be required to comply with rule 22 of the national agreement of the Brotherhood in the freight traffic manager's office, the Labor Board upheld the contention of the Brotherhood and ordered that a copy of the seniority roster of the clerks in the freight traffic manager's office be given to the representative of the employees.—*Decision No.* 1996.

Equipment and Supplies

Freight Cars

THE CHINO COPPER COMPANY is inquiring for 14, 30-yd. dump cars.

THE ATLANTA & WEST POINT is inquiring for 100 composite high side gondola cars of 50 tons' capacity.

THE J. M. IRA COMPANY, Chicago, has ordered 2 glass lined milk tank cars from The Pfaudler Company, Rochester, N. Y.

THE BOWMAN DAIRY COMPANY, Chicago, has ordered 2 glass lined milk tank cars from The Pfaudler Company, Rochester, N. Y.

THE ASIATIC PETROLEUM COMPANY is inquiring for 2 tank cars of 1,500 gal. capacity. These cars are to be narrow gage and are for export.

THE GREAT WESTERN RAILWAY, Brazil, is inquiring through the car builders for 50 box cars of 25 tons' capacity, 50 box cars of 12 tons' capacity and 10 flat cars of 20 tons' capacity.

THE CHESWICK & HARMER, reported in the *Railway Age* of September 29 as inquiring for 10 steel hopper cars, has ordered 10 hopper cars of 55 tons' capacity from the Pressed Steel Car Company.

THE ANN ARBOR, reported in the *Railway Age* of November 17 as inquiring for 500 box cars of 40 tons' capacity, has ordered 250 automobile box cars and 250 box cars from the Standard Tank Car Company.

THE CHESAPEAKE & OHIO, reported in the *Railway Age* of October 27 as inquiring for 25 caboose cars, will build these cars in its own shops. The company is now asking for 25 steel underframes for these cars.

THE TEXAS COMPANY, reported in the *Railway Age* of September 8 as inquiring for 10 tank cars of 6,000 gal. capacity, has ordered this equipment from the General American Tank Car Corporation. These cars are to be narrow gage.

THE INDIAN RAILWAY BOARD, Simla, India, is advertising in India and England for tenders on 3,000 goods wagons to be delivered during the year beginning April 1, 1924. Sealed bids must be in the hands of the secretary of the Railway Board at Delhi not later than January 22, 1924.

THE GREAT NORTHERN will rebuild 1,000 box cars and convert them into stock cars, part of the work to be done in the railroad company's shops and part at the Siems-Stembel plant, St. Paul, Minn. The company will not build 500 stock cars in its own shops as was reported in the *Railway Age* of December 1.

Passenger Cars

THE CENTRAL OF GEORGIA is inquiring for 2 partition coaches and 4 straight coaches.

THE UNADILLA VALLEY has bought a model 55 gasoline car from the J. G. Brill Company.

THE GULF, MOBILE & NORTHERN is inquiring for 2 baggage cars, 2 partition coaches and 2 straight coaches.

THE WHITE COMPANY, Albany, N. Y., has bought from the J. G. Brill Company equipment for mounting a motor truck on rails for export shipment.

THE OUDH & ROHILKHAND RAILWAY, India, is advertising in India for bids on 59 underframes and 118 trucks for passenger cars to be delivered during the year beginning April 1, 1924. Sealed bids must be in the hands of R. Burton, locomotive and carriage superintendent for the railway at Lucknow, India, not later than January 1, 1924.

THE TENNESSEE, KENTUCKY & NORTHERN has placed an order with the Edwards Railway Motor Car Company for a motor car to be delivered in the early part of next year. The Edwards Railway Motor Car Company has also received an order for a car and trailer to be delivered about January 1, to the Black Star Coal Company, Louisville, Ky. This motor car will seat 30 passengers, also contain a toilet and a 9-ft. baggage compartment, and the trailer will seat 34 passengers and also contain a toilet. The Edwards Railway Motor Car Company has already delivered the motor cars mentioned in the *Railway Age* of December 1, to the Laurinburg & Southern, the Washington & Lincolnton, the Birmingham & Southeastern, the Baltimore & Ohio, the Sumter & Choctaw and the Mt. Jewett, Kinzua & Ritterville and these cars are now in active operation on the above roads.

Iron and Steel

THE NORFOLK & WESTERN is inquiring for 200 tons of steel for bridges.

THE DELAWARE & HUDSON is inquiring for 300 tons of steel for bridges.

THE LEHIGH VALLEY is inquiring for 150 tons of steel for bridges.

THE PENNSYLVANIA has received bids on 5,000 tons of steel for a bridge at Sunbury, Pa.

THE BALTIMORE & OHIO has received bids on 2,000 tons of steel for use at Parkersburg, West Va.

THE BALTIMORE & OHIO has ordered 15,000 tons of tie plates from the Jones & Laughlin Steel Company.

THE NEW YORK CENTRAL has received bids on 2,500 tons of steel for bridges at various places on its lines.

THE NEW YORK CENTRAL is in the market for 30,000 tons of tie plates, and 100,000 kegs of spikes and bolts.

THE VIRGINIAN RAILWAY has ordered 2,000 tons of steel for a power plant, from the Virginia Bridge & Iron Co.

THE SOUTH MANCHURIAN RAILWAY has ordered 16,000 tons of rail from the United States Steel Products Company.

THE ATCHISON, TOPEKA & SANTA FE is in the market for 100,000 tons of rails and 25,000 tons of angle bars, tie plates, spikes and bolts.

Locomotive and Freight Car Conditions

	Locomotives					Freight Cars				
Date	No. locomotives on line	No. serviceable	No. stored serviceable	No. req. repairs over 24 hrs.	Per cent req. repairs over 24 hrs.	No. freight cars on line	Cars awaiting heavy repairs	Cars awaiting light repairs	Total cars awaiting repairs	Per cent of cars awaiting repairs
January 1	64,453	48,905	576	13,587	21.1	2,264,593	164,041	51,970	216,011	9.5
February 1	64,449	49,037	589	13,537	21.0	2,287,258	157,858	51,613	209,471	9.2
March 1	64,556	49,199	703	13,423	20.8	2,271,051	155,813	59,739	275,555	9.5
April 1	64,559	50,107	914	12,801	19.8	2,296,997	154,302	52,010	206,312	9.0
May 1	64,390	50,259	1,326	12,473	19.4	2,276,001	151,435	59,070	210,505	9.2
June 1	63,964	51,281	1,569	11,368	17.8	2,252,481	155,564	56,202	211,766	9.4
July 1	63,906	52,456	2,181	10,326	16.2	2,260,532	146,299	44,112	190,411	8.4
August 1	63,940	52,385	2,550	10,370	16.2	2,278,219	144,566	44,448	189,014	8.3
September 1	63,955	53,438	2,714	9,392	14.7	2,271,493	137,229	38,098	175,327	7.7
October 1	63,982	54,159	2,620	8,787	13.7	2,270,840	118,563	32,769	151,332	6.7
November 1	64,192	54,080	2,517	9,163	14.3	2,263,099	116,084	34,540	150,624	6.6

Track Specialties

THE LOUISVILLE & NASHVILLE is inquiring for 8,000 tons of tie plates.

THE NEW YORK CENTRAL is inquiring for 25,000 tons of tie plates and opened bids on November 28 for 9,000 tons of spikes and bolts.

Machinery and Tools

THE CHICAGO, BURLINGTON & QUINCY has placed an order for 2 car wheel borers.

THE NEW YORK, NEW HAVEN & HARTFORD has placed an order for a car wheel borer.

THE NEW YORK CENTRAL has placed an order for a 14-in. engine lathe and for a 42-in. journal lathe.

Signaling

THE CHESAPEAKE & OHIO is installing a new d. c. electro-pneumatic interlocking in Lynchburg, Va., at the crossing of the Norfolk & Western; 18 working levers, controlling 17 switches and derails and 15 signals. The signals on the C. & O. tracks are of the color light type, while those on the N. & W. are Style "S" semaphores. The materials are being furnished by the Union Switch & Signal Company.

N. Y. C. Asks Bids for Train Control

The New York Central has sent out a specification with request for bids for the installation of automatic train control on those sections of the New York Central, the Boston & Albany, the Michigan Central, the Cleveland, Cincinnati, Chicago & St. Louis and the Pittsburgh & Lake Erie which were named in the order of the Interstate Commerce Commission of June 13, 1922, requiring the installation of automatic control. The company asks that bids be sent in by or before December 28. The sections named in the specification aggregate 514 route miles—or 1,368 miles of track and include 242 passenger and 572 freight locomotives. Eight concerns have been invited to bid.

C. J. MCDONALD, superintendent of perishable freight service of the Southern Pacific with headquarters at San Francisco, Cal., and J. T. Saunders, assistant freight traffic manager of the Southern Pacific with headquarters at Los Angeles, spoke on transportation problems at the 56th California State Fruit Growers' and Farmers' Convention held on December 7 at Santa Ana.

"Mrs. Jarley's Tax Works"—One of the Exhibits on the New York Central Service-Progress Special

Supply Trade News

The Crane Company, Chicago, is preparing plans for a one-story factory branch at South Bend, Ind.

The Bethlehem Shipbuilding Corp., Ltd., Union plant has removed its city sales offices to 1000 Matson building, 215 Market street, San Francisco, Cal.

The Q. & C. Company, New York, announces that it has acquired the exclusive United States rights for the manufacture and sale of the Unlimited travel type roller side bearing, under any and all patents granted to E. A. Laughlin, Oregon, Ill., and previously sold by the Standard Coupler Company.

Frank C. Pickard, whose election as vice-president of the **Talmage Manufacturing Company,** Cleveland, Ohio, was announced in the *Railway Age* of December 8, was born on September 20, 1880, at Trenton, Mich., and entered railroad service as a messenger boy at the age of 14 on the Chicago, Hammond & Western at Hammond, Ind. At Bedford, Ind., on the Southern Indiana, he finished two years' apprenticeship at the machinist trade and entered the road service as a fireman and engineman. After leaving that service, he worked on various western railroads until 1905 when he entered the service of the Pere Marquette as a machinist and served as machine foreman, erecting foreman and shop superintendent. In 1908 he left the Pere Marquette to go as master mechanic on the Mississippi Central and in 1909 went to the Cincinnati, Hamilton & Dayton as master mechanic of the Indianapolis and Springfield division. During this period he was elected president of the International Railway General Foremen's Association and served for two terms. In 1911 Mr. Pickard was appointed master mechanic of the Saginaw district of the Pere Marquette and in 1912 entered the service of the Delaware, Lackawanna & Western as division master mechanic at Buffalo, N. Y. He was a contributor to railroad clubs and technical journals on mechanical subjects. During this time he served as president of the Central Railway Club and as a member of the executive committee of the Niagara Frontier Car Inspection Association. He resigned from the Delaware, Lackawanna & Western on December 1 to become vice-president of the Talmage Manufacturing Company as above noted.

F. C. Pickard

The H. B. Wilson Company, St. Louis, Mo., composed of **H. B. Wilson** and **J. M. Shea** who have represented the **Mahr Manufacturing Company** in that city for the last two years, has recently been given additional territory extending along lines of various railroads out of St. Louis and including Kansas City.

The National Malleable Castings Company, Cleveland, Ohio, will change its corporate name in the near future, to the **National Malleable & Steel Castings Co.** The corporation now has shops in operation at Cleveland, Ohio, Sharon, Pa., Toledo, Ohio, Indianapolis, Ind., East St. Louis, Ill., Chicago and Melrose Park near Chicago. There will be no change in the officers or personnel of the corporation and the change in name is to be made to cover the scope of its steel castings production.

The Pfaudler Company, Rochester, N. Y., makers of glass-lined steel milk tank cars, has appointed **H. A. Stuart,** manager of the newly created milk transportation division with headquarters at Rochester, N. Y. This company has inaugurated a system of leasing so that the dairyman is not obliged to purchase the glass-lined milk tank car used in transporting milk in bulk but may lease it for a period of time at a fixed rental, and at the end of this period either purchase the car outright or renew the lease.

November Locomotive Shipments

The Department of Commerce has prepared the following table showing November shipments of locomotives from the principal manufacturing plants, based on reports received from the individual establishments:

	Nov. 1923	Oct. 1923	Nov. 1922	Eleven months' total Jan. to Nov. 1923	1922
Shipments:					
Domestic	270	295	144	2,680	862
Foreign	29	15	15	180	202
Total	299	310	159	2,860	1,064
Unfilled orders (end of month)					
Domestic	656	915	1,501	....	....
Foreign	35	62	118	....	....
Total	691	977	1,619	....	....

Obituary

James H. Waterbury, for twelve years resident manager of Pratt & Lambert, Inc., Buffalo, N. Y., died on December 8, at the Buffalo General Hospital, following a brief illness. Mr. Waterbury was born in Brooklyn, N. Y., on January 1, 1881. After completing school in his native city, he attended a private school near Philadelphia, Pa. He began his business career in the New York office of Pratt & Lambert, Inc., in January, 1898. Two years later he went to Buffalo as assistant resident manager and since 1911 served as resident manager.

Stephen C. Mason, secretary and director of the McConway & Torley Company, Pittsburgh, Pa., who served as president of the National Association of Manufacturers from 1918 to 1921, died on December 12 at his home in Pittsburgh from dilation of the heart. He had been ill for about six weeks. Mr. Mason was born in Fairlee, Vt., on February 1, 1861, and was educated in the common school and at Orford (N. H.) Academy and Newbury (Vt.) Seminary. He began his business career with the Connecticut & Passumpsic Railroad at Lyndeville, Vt., in 1880, serving with that company until 1888 when he resigned to go with the Interstate Commerce Commission at Washington, with which he served in various capacities until as assistant statistician he was in charge of the compilation and publication of the commission's statistics of railways in the United States. He gave up this position in 1896 to go to the McConway & Torley Company, where he served in various capacities and at the time of his death was secretary and director of that company. He was vice-president from Pennsylvania of the National Association of Manufacturers and then became president. He was also vice-president of the Steel Founders Society of America, executive member of the Railway Business Association, also a member of the National Industrial Conference Board, member of the Chamber of Commerce of Pittsburgh and chairman of the finance committee of the Railway Club of Pittsburgh.

S. C. Mason

Railway Construction

CHICAGO, BURLINGTON & QUINCY.—This company plans the construction of a number of additional team tracks and an automobile receiving station at its freight house at Denver, Colo. This company will also construct a subway under its tracks at Casper, Wyo.

ILLINOIS CENTRAL.—This company plans the construction of a locomotive shop, roundhouse and oil station at Sioux City, Iowa, to cost approximately $500,000.

KANSAS CITY SOUTHERN.—This company will construct a two-story office building at its shops at Pittsburg, Kan.

MALHEUR RAILROAD.—This company has applied to the Interstate Commerce Commission for a certificate authorizing the construction of an extension from Burns to Seneca, Ore., 50 miles.

MUSCLE SHOALS, BIRMINGHAM & PENSACOLA.—This company has applied to the Interstate Commerce Commission for authority to build an extension from Kimbrough to Jasper, Ala., 150 miles, to connect with the St. Louis-San Francisco.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—This company has awarded a contract to the Roberts & Schaefer Company, Chicago, for the construction of a 250-ton, three-track reinforced concrete coaling station and concrete gravity sand plant at Kingston, Georgia.

NORTHERN PACIFIC.—This company contemplates the construction of a secondary, low grade main line from Killdeer, N. Dak., to Newlon, Mont., a distance of 80 miles, and of second track from Little Falls, Minn., to Philbrook, a distance of 28 miles, according to testimony of Charles Donnelly, president of the road, at a rate hearing in Minneapolis, Minn.

NEW YORK, CHICAGO & ST. LOUIS.—This company will construct a one-story machine shop at Conneaut, Ohio, at a cost of $40,000.

OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY.—This company, jointly with the Walla Walla Valley Electric Railway, will construct an extension to be used by both roads from Milton, Ore., to Umapine, a distance of 5½ miles. The work will be undertaken in the spring.

PENNSYLVANIA.—This company will put into operation a large icing plant at Huntingdon, Pa., 33 miles east of Altoona, early next spring. The station will cost approximately $900,000. Two 700-ft. island platforms will be provided at the new station, one for eastbound and the other for the westbound movement. Tracks will be laid on both sides of these platforms, making it possible for each platform to accommodate two trains at one time. Entire trains will move directly to the platforms on main running tracks, the cars will be iced on an average of one a minute, and the trains continued to destination without break-up or change of engines. Delays incident to switching and reclassification will be eliminated. Working to capacity, the new plant will manufacture 225 tons of ice daily, with facilities for storing 4,000 tons.

UNION PACIFIC.—This company has authorized the construction of a 40-ft. by 160-ft., one-story brick storehouse, with a covered platform, 40-ft. by 100-ft. and six platforms around the storehouse, at Grand Island, Nebr., to cost approximately $78,000. This company has also authorized the construction of a 23-ft. by 38-ft., two-story freight and passenger depot at Melba, Idaho, and a 24-ft. by 94-ft., one-story freight and passenger depot at Draper, Utah, each to cost approximately $10,000. The construction of a 22-ft. by 54-ft. one-story frame depot at Sloan, Nev., and of a 24-ft. by 72-ft. frame and stucco freight house at Pasadena, Cal., has also been authorized. These buildings will cost $8,000 and $12,000 respectively. An 8-stall extension to the roundhouse at Caliente, Nev., and the installation of a boiler washing plant at that place, to cost approximately $86,000, has also been approved, as has the construction of a 43-ft. by 210-ft. brick extension to the freight station at Los Angeles, Cal., at a cost of $35,500.

Railway Financial News

APPALACHIAN.—*Application for Certificate Denied.*—The Interstate Commerce Commission has denied this company's application for a certificate authorizing it to operate a line from Ravensford to Carsons Junction, N. C., 8.38 miles, as a common carrier.

ATCHISON, TOPEKA & SANTA FE.—*Asks Authority to Abandon Operation of Branch Line.*—This company has applied to the Interstate Commerce Commission for authority to abandon a portion of its Barnwell branch from Goffs, Calif., to Searchlight, Nev., 55.57 miles.

Asks Authority for Lease.—This company has applied to the Interstate Commerce Commission for a certificate authorizing it to acquire control by lease of the Grand Canyon Railway.

BALTIMORE & OHIO.—*Authorized to Abandon Line.*—The Interstate Commerce Commission has authorized the abandonment of part of the Bedford branch of the Baltimore & Ohio Southwestern from a point near Rivervale to a point near Bedford, Ind., 9.33 miles. The commission has also authorized the Chicago, Indianapolis & Louisville to acquire about 1½ miles of the line with about 1.9 miles of side track. The company has also applied for authority to abandon its Magnolia branch, 2.28 miles, near Sandyville, O.

BOSTON & MAINE.—*Asks Authority to Issue Bonds.*—This company has applied to the Interstate Commerce Commission for authority to issue $7,000,000 of bonds to be deposited as collateral with the Secretary of the Treasury as security for a government loan.

CENTRAL INDIANA.—*Sale Postponed.*—This road, operating between Muncie, Ind., and Brazil, a distance of 127 miles, which has been in the hands of a receiver for several months, failed to attract any bidders when offered for sale on December 3 by Charles Martindale, master in chancery of the United States District Court. The road will be offered for sale again on March 17, next.

CHICAGO & EASTERN ILLINOIS.—*Asks Authority to Issue Bonds.*—This company has applied to the Interstate Commerce Commission for authority to issue $2,605,300 prior lien mortgage 5½ per cent bonds to reimburse the treasury for expenditures, to be sold from time to time at not less than 95 or to be pledged.

CHICAGO & NORTH WESTERN.—*Dividends Reduced.*—As a result of unsatisfactory business conditions in the northwest, this road has cut the semi-annual dividend on its common stock from 2½ per cent to 1½ per cent. Net earnings after rentals in the first ten months of 1923 were $12,436,388 as compared with $14,543,962 in the corresponding period of 1922. According to Vice-President S. A. Lynde, November earnings would run about the same as those for October.

The announcement of the reduction in the dividend rate caused Chicago & Northwestern common stock to decline from the days' high of 60¼ to 48¾ and close with a net loss of 10⅛.

The regular semi-annual dividend of 3½ on the preferred has been declared. The common and preferred dividends are both payable January 15 to stock of record December 21.

CHICAGO, MILWAUKEE & GARY.—*Asks Authority to Abandon Line.*—This company has applied to the Interstate Commerce Commission for authority to abandon a branch line of 16.36 miles from Kirkland, Ill., to Camp Grant.

CHICAGO, MILWAUKEE & ST. PAUL.—*Asks Authority to Issue Bonds.*—This company has applied to the Interstate Commerce Commission for authority to issue and pledge part or all of $10,000,000 of general mortgage bonds which have been nominally issued, to complete the financing of additions and betterments.

Authorized to Operate Line.—The Interstate Commerce Commission has issued a certificate authorizing the operation of a line of 5.2 miles to connect with the proposed tracks of the Ford Motor Company in the city of St. Paul, Minn.

CHICAGO, PEORIA & ST. LOUIS.—*Hearing to Be Held.*—Bondholders, on December 4, joined the receivers in asking the Supreme Court of Illinois to dismiss the writ of error in the case involving the sale of the road on December 15. The case is set for oral argument December 17.

CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA.—*Dividend Passed.*—The directors have passed the regular semi-annual dividend of 2½ per cent on the common stock. The regular semi-annual dividend of 3½ per cent on the preferred has been declared, payable February 20 to stock of record February 1.

CHICAGO, TERRE HAUTE & SOUTHEASTERN.—*Bonds Sold.*—J. A. Sisto & Co., New York, and Harper & Turner, Philadelphia, have sold $1,969,000 first and refunding 5 per cent bonds, due in 1960 at 80½ and accrued interest, to yield 6⅜ per cent.

COLORADO & SOUTHERN.—*Common Dividend Passed.*—Because of a decline in traffic in the last year, and excessive flood losses, the directors on December 6 announced that the annual dividend of 3 per cent on the common stock would be passed. The regular annual dividend of 4 per cent on the second preferred and the regular semi-annual dividend of 2 per cent on the first preferred were declared, both payable December 31 to stock of record December 17.

A statement issued by the board said that the Colorado & Southern and its associate companies have expended more than normal for conditioning power and equipment and the equipment of the company is now in better condition than for some time past.

DENVER & RIO GRANDE WESTERN.—*Authorized to Abandon Branch Lines.*—The Interstate Commerce Commission has authorized the abandonment of the Blue River branch narrow gage line from Leadville to Dillon, Colo., 35.68 miles. The commission has also authorized the abandonment of the narrow gage Calumet branch from Hecla Junction to Calumet, Colo., 7.13 miles.

GRAND CANYON.—*Control.*—See Atchison, Topeka & Santa Fe.

KAHULIU (HAWAII).—*Asks Authority to Issue Stock.*—This company has applied to the Interstate Commerce Commission for authority to increase its capital stock from $300,000 to $900,000 and to issue $600,000 as a stock dividend.

KALAMAZOO, LAKE SHORE & CHICAGO.—*Asks Authority to Abandon Line.*—This company has applied to the Interstate Commerce Commission for a certificate authorizing it to abandon its line from Kalamazoo to Lawton, Mich., 16 miles.

MINNEAPOLIS & ST. PAUL.—*Application to Issue Securities Dismissed.*—The Interstate Commerce Commission has dismissed the application filed last January for authority to issue $10,000,000 of preferred stock and $9,895,000 of bonds, because the company has since gone into receivership.

NEW YORK CENTRAL.—*New Stock Issue.—Reading Rights.*—This company on December 12 announced that it offers to stockholders of record January 2 the right to subscribe to additional common stock at par in the ratio of one share to each ten shares now held, payment to be made by January 31. At the same time it was announced that the 603,650 rights to subscribe to coal stock which the company will receive on its holdings in the Reading Company will be offered to stockholders on February 1 at $3 per right.

In a letter to New York Central stockholders announcing the right to subscribe to new stock and to purchase Reading rights, President A. H. Smith states that the maximum amount of the new stock issue will be $31,510,620. The present amount of stock outstanding is $268,237,374. If on January 2 the amount of stock outstanding should through conversion of bonds be greater than $315,106,200, the amount of stock to which each stockholder may subscribe will be proportionately reduced.

SOUTHERN PACIFIC.—*Equipment Trust Certificates Authorized.*—The Interstate Commerce Commission has granted this company's application for authority to issue $23,100,000 of equipment trust certificates.

VIRGINIAN.—*Bonds Offered.*—The National City Company, Lee, Higginson & Co. and Kissell, Kinnicutt & Co. are offering $5,000,000 of first mortgage 50-year 5 per cent gold series A bonds at 94 and interest, to yield about 5⅜ per cent. The issue of the bonds is subject to authorization by the Interstate Commerce Commission. The bonds are redeemable as a whole or in part

at 110 and interest. The proceeds from the sale of these bonds will be used for the electrification program of the company and for expenditures made and to be made on account of the construction of the second electrically operated coal pier being constructed at Sewalls Point.

Initial Dividend.—The Virginian has declared an initial dividend of 4 per cent on the $31,271,500 of common stock, payable December 31 to stockholders of record December 20.

WILDWOOD & DELAWARE BAY SHORT LINE.—*Application for Authority to Issue Bonds Denied.*—The Interstate Commerce Commission has denied this company's application for authority to issue $82,000 of first mortgage 5 per cent gold bonds for the purpose of reimbursing its treasury for expenditures, as not compatible with the public interest, on the ground that no payments into the sinking fund have been made as provided by the terms of the mortgage, and the bonds now outstanding may at any time be declared due and payable by the trustee.

Railroad Administration Settlements

The United States Railroad Administration reports the following final settlements, and has paid out and received from the several roads the following amounts:

Erie Railroad Company	$5,000,000
Central Railroad Company of New Jersey	4,500,000
New York & Long Branch Railroad Company	50,000
Seaboard Air Line Railway Company	750,000
Pittsburg & Shawmut Railroad Company	325,000
Glenn-Pool Tank Line Company	10,000
Port Huron & Detroit Railroad Company	5,000
New York Central Railroad Company paid Director General	23,000,000
SHORT LINES	
Smoky Mountain Railroad Company	2,800

Dividends Declared

Bangor & Aroostook.—Preferred, 1¾ per cent, quarterly, payable January 1 to holders of record December 15.

Chicago & North Western.—Common, 1½ per cent; preferred, 3½ per cent, semi-annually; both payable January 15 to holders of record December 21.

Chicago, St. Paul, Minneapolis & Omaha.—Preferred, 3½ per cent, semi-annually, payable February 20 to holders of record February 1.

Colorado & Southern.—First preferred, 2 per cent; second preferred, 4 per cent, annually; both payable December 31 to holders of record December 18.

Fonda, Johnstown & Gloversville.—Preferred, 1½ per cent, quarterly, payable December 15 to holders of record December 10.

Joliet & Chicago.—$1.75, quarterly, payable January 2 to holders of record December 20.

Lehigh Valley.—Common, 1¾ per cent, quarterly; preferred, 2¼ per cent, quarterly; both payable January 2 to holders of record December 15.

Mohawk Valley.—$2, quarterly, payable January 2 to holders of record December 21.

Northern Central.—4 per cent, payable semi-annually, payable January 15 to holders of record December 31.

Pere Marquette.—Common, 1 per cent, quarterly, payable January 2 to holders of record December 14; 5 per cent preferred, 1¼ per cent quarterly; 5 per cent prior preferred, 1¼ per cent; both payable February 1 to holders of record January 15.

Pittsburgh, Ft. Wayne & Chicago.—Common, 1¾ per cent, quarterly, payable January 2 to holders of record December 10; preferred, 1¾ per cent, quarterly, payable January 8 to holders of record December 10.

Reading Company.—Common, 2 per cent, quarterly, payable February 14 to holders of record January 22; second preferred, 1 per cent, quarterly, payable January 10 to holders of record December 17.

Western Pacific.—Preferred, $1.50, quarterly, payable January 3.

Trend of Railway Stock and Bond Prices

	Dec. 11	Last Week	Last Year
Average price of 20 representative railway stocks	60.15	61.53	64.84
Average price of 20 representative railway bonds	82.83	82.40	85.31

THROUGH rail-river-ocean rates from Chicago, Indianapolis, Louisville and intervening points to Pacific coast terminals via Panama Canal were put into effect on November 30 by the Illinois Central, the Mississippi-Warrior Boat Service and the Pacific, Caribbean & Gulf Steamship Company. The new rates are 20 per cent under the present trans-continental rail rates from the central west and are designed to enable Chicago and Indiana manufacturing points to compete with New York City for Pacific coast business. Corresponding rates are effective from all points on the Illinois Central. Freight, handled under the through bills of lading, will be turned over to the barge line at East St. Louis or Cairo and by it delivered to the steamship line at New Orleans.

Railway Officers

Executive

John Henry Hammond, vice-president of the Cincinnati, Indianapolis & Western, with headquarters at New York, has been elected chairman of the executive committee in addition to his former duties.

Financial, Legal and Accounting

Thomas W. Hulme has been appointed general real estate agent of the Long Island with headquarters at Philadelphia, Pa.

M. S. Leaming has been appointed freight claim agent of the Chicago & Western Indiana and the Belt Railway of Chicago, with headquarters at Chicago, succeeding **O. N. Goldsmith**, deceased.

Operating

J. B. Flaherty has been appointed acting general superintendent of the Denver & Salt Lake, with headquarters at Denver, Colo.

J. A. Moran, assistant division superintendent on the St. Louis-San Francisco, with headquarters at Neodesha, Kans., has been promoted to superintendent of the River division, with headquarters at Chaffee, Mo., succeeding F. G. Faulkner, who has been promoted.

T. E. Brooks, assistant general manager of the Louisville & Nashville, with headquarters at Louisville, Ky., has been promoted to general manager, with the same headquarters, succeeding B. M. Starks, whose death on November 29 was reported in the *Railway Age* of December 8. Mr. Brooks was born on December 4, 1865, at Ashley, Ill. He entered railway service in May, 1882, as an operator on the Louisville & Nashville, being subsequently promoted to agent and dispatcher on the St. Louis & Henderson division. In September, 1885, he was promoted to timekeeper and chief clerk to the assistant superintendent at Evansville, Ind., and in January, 1888, was appointed secretary to the superintendent of the Cincinnati division at Louisville, Ky. Mr. Brooks was promoted to chief clerk to the superintendent of transportation at Louisville in August, 1889, and in January, 1896, was promoted to trainmaster of the Memphis division. He was appointed general agent for the Nashville, Florence & Sheffield division in January, 1897, and was promoted to assistant superintendent of the Nashville division in October, 1900. In September of the following year, Mr. Brooks was promoted to superintendent of the Nashville division, which position he held until January, 1905, when he was transferred to the South & North Alabama, the Birmingham Mineral and the Alabama Mineral. On November 1, 1920, he was promoted to assistant general manager, with headquarters at Louisville, the position in which he was serving at the time of his recent promotion to general manager.

T. E. Brooks

Hugh Wilson has been appointed superintendent of the Salida division of the Denver & Rio Grande Western, with

headquarters at Salida, Colo. **C. B. Carpenter** has been appointed superintendent of the Gunnison division, with headquarters at Gunnison, Colo.

O. C. Hibbs, assistant superintendent of the LaCrosse division of the Chicago, Burlington & Quincy, with headquarters at Daytons Bluff, (St. Paul) Minn., has been promoted to superintendent of the Brookfield division, with headquarters at Brookfield, Mo., succeeding **W. A. Chittenden,** who, on account of ill health, has been appointed a member of the Board of Train Rule Examiners. **C. J. Connett,** acting assistant superintendent of the LaCrosse division, with headquarters at Daytons Bluff, Minn., has been appointed assistant superintendent, succeeding Mr. Hibbs.

W. J. Backes, whose appointment as assistant general manager of the New York, New Haven & Hartford was announced in the *Railway Age* of December 8, page 1087, was born on April 29, 1879, and was graduated from the Sheffield Scientific School, Yale University in 1899. In July of the same year he entered railway service as a leveller on the Mexican International. For a few months in 1900 he acted as assistant superintendent of construction for a contractor in Mexico, and in January, 1901, became an assistant in the engineering department of the Pennsylvania, lines west. In 1902 he was promoted to transitman and in the following year he entered the service of the New York, New Haven & Hartford in the same capacity. In 1905 he was appointed assistant engineer on the construction of the Pennsylvania terminal in New York. The following year he became chief engineer of the Central New England and in March, 1913, was appointed engineer maintenance of way on the New York, New Haven & Hartford, which position he was serving at the time of his recent promotion.

Traffic

W. T. Westbrook has been appointed commercial agent for the Louisville & Nashville, with headquarters at Chicago.

W. A. Terry, freight traffic manager of the New York Central, lines west of Buffalo, with headquarters at Chicago, has been given extended jurisdiction to include the Ohio Central lines.

A. V. Kipp, traffic manager of the Salt Lake & Utah, with headquarters at Salt Lake City, Utah., has been appointed assistant general freight agent of the Union Pacific, with office in Salt Lake City.

E. R. Whelen has been appointed general agent for the Lehigh Valley, with headquarters at Cincinnati, Ohio, in charge of a newly established agency. **M. J. Vandewalker** has been appointed general agent, with headquarters at Memphis, Tenn., in charge of another new office.

M. M. Goodsill, assistant general passenger agent in charge of advertising of the Northern Pacific, with headquarters at St. Paul, Minn., has been promoted to assistant to the vice-president in charge of traffic, with the same headquarters. Mr. Goodsill will continue to have charge of the advertising of the road.

C. L. McFaul, general passenger agent of the Southern Pacific, with headquarters at San Francisco, Cal., has been promoted to assistant passenger traffic manager, with the same headquarters, succeeding **J. H. R. Parsons,** whose promotion to passenger traffic manager was reported in the *Railway Age* of October 20. A sketch and photograph of Mr. McFaul appeared in the *Railway Age* of July 28, page 186.

Mechanical

C. C. Hamilton has been appointed master mechanic of the Canton Railroad, Baltimore, Md.

B. B. Milner has been appointed mechanical engineer of the Missouri-Kansas-Texas with headquarters at Parsons, Kan.

T. R. Williams has been appointed assistant to the master car builder of the Northern Pacific, with headquarters at St. Paul, Minn.

H. P. Hass has been appointed office assistant to the mechanical manager of the New York, New Haven & Hartford with headquarters at New Haven, Conn. **F. E. Ballda** has been appointed assistant to the mechanical manager. **F. T. Quinlan** has been appointed engineer of tests. **C. L. Peterson** has been appointed general supervisor of power stations.

William L. Bean, whose promotion to assistant mechanical manager of the New York, New Haven & Hartford was announced in the *Railway Age* of December 8, page 1087, was born on January 3, 1878, and was graduated from the University of Minnesota in 1902, having completed the course in mechanical engineering. He immediately entered the service of the Northern Pacific as a special apprentice and served in that capacity until late in 1904. On January 1, 1905, he became a gang foreman for the Atchison, Topeka & Santa Fe. In 1906 he was promoted to locomotive inspector and in 1908 to machine shop foreman. The following year he became division foreman and a few months later motive power assistant. In 1911 he was appointed bonus supervisor and held that position until early in 1912. Mr. Bean was out of railroad service then until July, 1916, when he entered the service of the New York, New Haven & Hartford as an analyst in expenses and methods. In 1917 he was promoted to assistant to the chief mechanical superintendent and in 1918 to mechanical assistant, which position he held at the time of his recent promotion.

W. L. Bean

Engineering, Maintenance of Way and Signaling

H. L. Black has been appointed superintendent of signals of the Quebec and Northern Ontario districts of the Canadian National with headquarters at Toronto, Ont.

R. L. Pearson, whose promotion to engineer maintenance of way of the New York, New Haven & Hartford was announced in the *Railway Age* of December 8, page 1088, was born on April 2, 1882, and was graduated from Swarthmore College in 1902. In 1904 he became an inspector in the maintenance of way department of the New York, New Haven & Hartford and a few months thereafter was promoted to transitman. In 1908 he was promoted to assistant engineer and in 1914 to track supervisor. In 1916 he was appointed division engineer of the New London division and the following year was transferred to the Providence division. He resigned from the service in October, 1917, and returned in September, 1918, as division engineer of the Central New England and Danbury divisions. In 1920 he was transferred in a similar capacity to the New Haven division and in 1921 was promoted to maintenance engineer, lines west, which position he held at the time of his recent promotion.

Obituary

L. K. Owen, superintendent of dining cars of the Northern Pacific, with headquarters at St. Paul, Minn., died in that city on December 6.

Samuel Rockwell, formerly chief engineer and later consulting engineer of the New York Central, lines west of Buffalo, who retired in 1918, died at Cleveland, Ohio, on November 21.